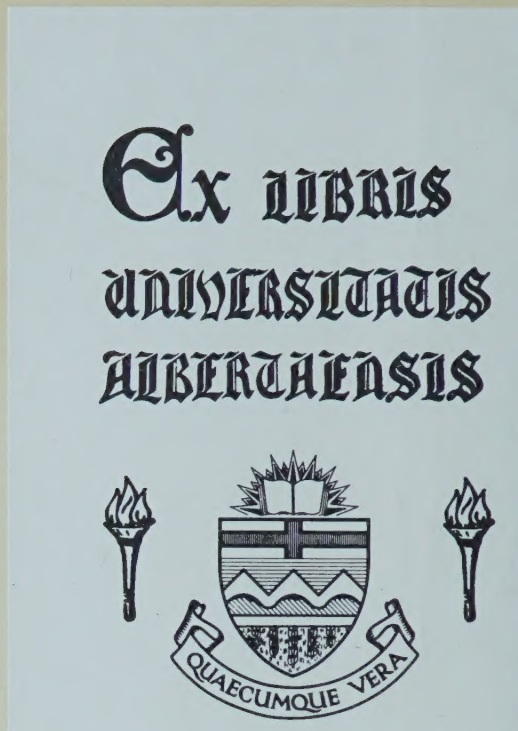
University Of Alberta
0 0002 08909 27

QA
107
S42
1974
LEV.6
PR.SHTS.
TCH.ED.
CURR

DITION
EETS

SRA
MATHEMATICS
LEARNING SYSTEM

"The Metric Commission has granted use of the National Symbol for Metric Conversion"



M. Vere DeVault
Professor of Curriculum and Instruction
University of Wisconsin

Herbert J. Greenberg
Chairman, Department of Mathematics
University of Denver

Helen Frehmeyer
Classroom Teacher and
Educational Consultant

Stanley J. Bezuszka
Director
Boston College Mathematics Institute

and

Leo Anglin
University of Wisconsin

Linda Loff
University of Wisconsin

SRA
SCIENCE RESEARCH ASSOCIATES (CANADA) LIMITED

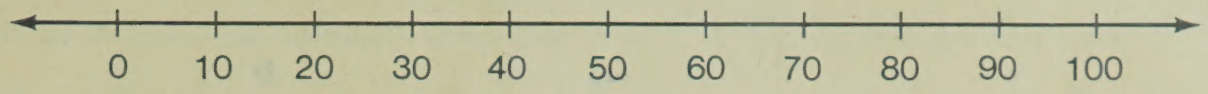
Toronto, Montreal
Chicago, Palo Alto, Sydney
Henley-on-Thames, Paris, Stuttgart

©Science Research Associates (Canada) Limited 1976
Adapted from **SRA Mathematics Learning System, Practice Sheets.**
©Science Research Associates Inc. 1974

Printed in Canada

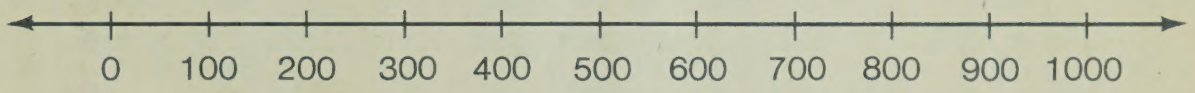
LIBRARY
UNIVERSITY OF ALBERTA

NAME _____



Round to the nearest ten. Use the number line if you need help.

	a	b	c	d
1.	32 30	76 80	55 60	44 40
2.	25 30	81 80	17 20	36 40
3.	12 10	63 60	11 10	87 90
4.	49 50	22 20	89 90	51 50
5.	15 20	44 40	71 70	75 80



Round to the nearest hundred. Use the number line if you need help.

	a	b	c	d
6.	640 600	520 500	220 200	720 700
7.	710 700	880 900	460 500	560 600
8.	950 1000	930 900	370 400	160 200
9.	365 400	350 400	745 700	830 800
10.	273 300	648 600	550 600	281 300

Round each number to the nearest ten. Estimate the sum.

	a	b	c
11.	64 rounds to 60 + 40 rounds to 40 100	88 rounds to 90 + 30 rounds to 30 120	72 rounds to 70 + 40 rounds to 40 110
12.	83 rounds to 80 + 49 rounds to 50 130	17 rounds to 20 + 16 rounds to 20 40	68 rounds to 70 + 34 rounds to 30 100

©1976, SRA

2705476

Estimate the sum. Then ring your estimate.

	a	b
1.	Is 54 + 27 closer to 80 or 90?	Is 13 + 48 closer to 50 or 60?
2.	Is 71 + 19 closer to 80 or 90?	Is 24 + 87 closer to 110 or 120?
3.	Is 28 + 38 closer to 60 or 70?	Is 74 + 37 closer to 110 or 120?
4.	Is 91 + 27 closer to 110 or 120?	Is 29 + 31 closer to 50 or 60?
5.	Is 31 + 18 closer to 40 or 50?	Is 59 + 14 closer to 70 or 80?

Estimate each sum to the nearest ten. Then use > or < to complete each sentence.

	a	b	c
6.	34 + 50 (>) 80	50 + 47 (<) 100	40 + 26 (<) 70
7.	30 + 36 (<) 70	25 + 40 (<) 70	34 + 60 (>) 90
8.	20 + 38 (<) 60	30 + 47 (<) 80	43 + 30 (>) 70
9.	35 + 70 (<) 110	50 + 29 (<) 80	75 + 60 (<) 140
10.	77 + 10 (<) 90	30 + 37 (<) 70	61 + 70 (>) 130

Estimate an answer for each. Then compute the exact answer.

	a	b	c	d	e	f
11.	24 + 69 = 93 (90)	31 + 91 = 122 (120)	94 + 15 = 109 (110)	90 + 19 = 109 (110)	33 + 43 = 76 (70)	64 + 36 = 100 (100)

Estimate the sums to the nearest ten. Then compute.

	Estimate	Exact
28 + 47	(1) 80	(2) 75
72 + 15	(3) 90	(4) 87
87 + 64	(5) 150	(6) 151
14 + 41	(7) 50	(8) 55
97 + 81	(9) 180	(10) 178
37 + 68	(11) 110	(12) 105

Estimate to the nearest hundred. Then use > or < to complete each sentence.

	a	b	c
1.	442 + 191 (<) 700	252 + 487 (>) 700	383 + 257 (>) 600
2.	347 + 413 (<) 800	268 + 597 (>) 800	176 + 366 (<) 700
3.	686 + 220 (>) 800	522 + 291 (<) 900	377 + 501 (>) 800
4.	687 + 235 (>) 800	504 + 392 (>) 800	541 + 239 (>) 600
5.	497 + 342 (>) 800	367 + 298 (<) 700	188 + 652 (<) 900

Round each number to the nearest hundred. Estimate the sum.

	a	b	c
6.	510 rounds to 500 + 120 rounds to 100 600	690 rounds to 700 + 670 rounds to 700 1400	380 rounds to 400 + 850 rounds to 900 1300
7.	765 rounds to 800 + 329 rounds to 300 1100	357 rounds to 400 + 348 rounds to 300 700	386 rounds to 400 + 442 rounds to 400 800

Add. Use estimation to check whether your answer makes sense.

	a	b	c	d	e
8.	375 + 178 553	413 + 289 702	203 + 578 781	634 + 376 1010	586 + 274 860
9.	749 + 357 1106	525 + 646 1171	364 + 448 812	276 + 195 471	948 + 365 1313
10.	467 + 364 831	279 + 658 937	193 + 128 321	864 + 587 1451	267 + 548 815

©1976, SRA

Add. Use estimation to check whether your answer makes sense.

	a	b	c	d	e
1.	4 9 + 7 20	6 3 + 7 16	16 13 + 54 83	25 12 + 16 53	18 20 + 43 81
2.	19 + 75 94	45 + 89 134	334 + 456 790	849 + 536 1385	858 + 345 1203

Add.

(1)	(2)	(3)	(4)
5 6 + 4 15	6 9 3 + 6 24	5 6 2 + 7 20	3 8 8 + 6 25
(5)	(6)	(7)	(8)
32 21 + 18 71	54 25 + 19 98	14 28 + 39 81	44 37 + 13 94
(9)	(10)	(11)	(12)
17 28 21 + 13 79	43 23 17 + 14 97	18 43 11 + 27 99	17 49 35 + 12 113
(13)	(14)	(15)	(16)
27 + 63 90	56 + 36 92	69 + 54 123	57 + 48 105
(17)	(18)	(19)	(20)
832 + 109 941	614 + 298 912	245 + 867 1112	468 + 689 1157

Add. Use estimation to check whether your answer makes sense.

	a	b	c	d	e
1.	535 +377 912	185 +278 463	1399 +8234 9633	2441 +5363 7804	6406 +3095 9501
2.	143 266 +523 932	311 226 +313 850	384 102 +193 679	272 380 +303 955	245 395 +111 751

Add.

(1) 741 +179 920	(2) 486 +349 835	(3) 465 +429 894	(4) 627 +291 918
(5) 5659 +3963 9622	(6) 2634 +4096 6730	(7) 1768 +7445 9213	(8) 3962 +2589 6551
(9) 6433 +1698 8131	(10) 4596 +3995 8591	(11) 2983 +6755 9738	(12) 6543 +2387 8930
(13) 119 456 +209 784	(14) 327 534 +165 1026	(15) 545 133 +164 842	(16) 538 210 +177 925
(17) 198 678 +156 1032	(18) 370 296 +307 973	(19) 299 185 +436 920	(20) 178 522 +287 987

©1976, SRA

Round each number to the nearest ten. Estimate the difference.

	a	b	c
1.	56 rounds to 60 − 27 rounds to 30 30	67 rounds to 70 − 48 rounds to 50 20	53 rounds to 50 − 24 rounds to 20 30
2.	65 rounds to 70 − 36 rounds to 40 30	72 rounds to 70 − 45 rounds to 50 20	94 rounds to 90 − 48 rounds to 50 40

Estimate the difference. Then ring your estimate.

	a	b
3.	Is 31 − 18 closer to (10) or 20?	Is 74 − 29 closer to 30 or (40)?
4.	Is 61 − 13 closer to 40 or (50)?	Is 56 − 18 closer to 30 or (40)?
5.	Is 92 − 25 closer to 50 or (60)?	Is 83 − 24 closer to 50 or (60)?
6.	Is 81 − 28 closer to 40 or (50)?	Is 97 − 45 closer to (50) or 60?

Round each number to the nearest ten. Estimate the difference.
Write your estimate in the parentheses.

	a	b	c	d	e
7.	83 − 37 (40)	51 − 28 (20)	48 − 19 (30)	27 − 18 (10)	42 − 29 (10)
8.	53 − 28 (20)	93 − 37 (50)	85 − 27 (60)	76 − 39 (40)	54 − 27 (20)
9.	65 − 36 (30)	87 − 29 (60)	41 − 24 (20)	52 − 24 (30)	56 − 19 (40)

Round each number to the nearest hundred. Estimate the difference.

	a	b	c
1.	896 rounds to 900 − 567 rounds to 600 300	684 rounds to 700 − 397 rounds to 400 300	798 rounds to 800 − 329 rounds to 300 500
2.	843 rounds to 800 − 516 rounds to 500 300	656 rounds to 700 − 228 rounds to 200 500	827 rounds to 800 − 569 rounds to 600 200

Round each number to the nearest hundred. Estimate the difference. Write your estimate in the parentheses.

	a	b	c	d
3.	906 − 497 (400)	772 − 217 (600)	538 − 286 (200)	656 − 291 (400)
4.	386 − 115 (300)	821 − 196 (600)	493 − 178 (300)	855 − 369 (500)

Find the difference by renaming. Check your answer with estimation.

	a	b	c	d	e
5.	75 − 8 67	56 − 9 47	27 − 8 19	43 − 6 37	74 − 8 66
6.	245 − 176 69	624 − 569 55	836 − 257 579	757 − 379 378	963 − 495 468
7.	823 − 659 164	800 − 267 533	305 − 167 138	3283 − 295 2988	7660 − 627 7033

©1976, SRA

Having trouble with zeros? Try these.

	a	b	c	d	e
1.	300 − 121 = 179	600 − 248 = 352	600 − 551 = 49	800 − 708 = 92	400 − 267 = 133
2.	406 − 227 = 179	803 − 657 = 146	607 − 326 = 281	302 − 169 = 133	905 − 877 = 28

Check your subtraction progress.

① 622 − 438 = 184	② 732 − 154 = 578	③ 386 − 199 = 187	④ 491 − 292 = 199
⑤ 228 − 119 = 109	⑥ 925 − 659 = 266	⑦ 737 − 258 = 479	⑧ 600 − 396 = 204
⑨ 327 − 69 = 258	⑩ 921 − 74 = 847	⑪ 671 − 73 = 598	⑫ 815 − 38 = 777
⑬ 675 − 488 = 187	⑭ 700 − 514 = 186	⑮ 736 − 382 = 354	⑯ 613 − 315 = 298
⑰ 724 − 54 = 670	⑱ 872 − 384 = 488	⑲ 302 − 133 = 169	⑳ 463 − 65 = 398
㉑ 834 − 449 = 385	㉒ 832 − 179 = 653	㉓ 803 − 554 = 249	㉔ 513 − 496 = 17

Compute. (Watch the signs!)

	a	b	c	d	e
1.	495 − 338 = 157	383 + 268 = 651	808 + 176 = 984	782 − 386 = 396	732 − 494 = 238
2.	762 + 548 = 1310	584 − 277 = 307	517 + 535 = 1052	601 − 529 = 72	325 + 186 = 511

Complete.

1. Round each number to the nearest ten.

a 38 40 **b** 72 70 **c** 66 70

d 89 90 **e** 91 90 **f** 84 80

2. Round each number to the nearest hundred.

a 675 700 **b** 167 200 **c** 333 300

d 348 300 **e** 605 600 **f** 752 800

3. Estimate the answer. Then ring your estimate.

a Is 620 − 290 closer to 300 or 400? **b** Is 880 − 395 closer to 400 or 500?

c Is 337 + 483 closer to 700 or 800? **d** Is 779 + 148 closer to 900 or 1000?

4. Compute. (Watch the signs!)

a 570 − 180 = 390 **b** 460 + 370 = 830 **c** 697 + 458 = 1155

d 368 + 189 = 557 **e** 785 − 364 = 421 **f** 400 − 253 = 147

©1976, SRA

Add 25 to the preceding number, then

1. Here is a secret code. What is the number pattern? 24, then 23 and so on.

Alphabet	A	B	C	D	E	F	G	H	I	J	K	L	M
Code	31	56	80	103	125	146	166	185	203	220	236	251	265

Alphabet	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Code	278	290	301	311	320	328	335	341	346	350	353	355	356

2. Complete the code in problem 1.

3. Use the code in problem 1 to decode this message.

355-290-341	278-290-350	265-31-355	265-31-236-125
YOU	NOW	MAY	MAKE
355-290-341-320	**290-350-278**	**80-290-103-125**	
YOUR	OWN	CODE	

Complete each table. (Hint: Think addition.)

4.

a		b		c		d	
M	N	M	N	M	N	M	N
1	6	3	10	2	8	291	392
2	7	5	12	4	10	143	244
3	8	6	13	0	6	628	729
4	9	8	15	14	20	316	417
5	10	10	17	18	24	525	626

5.

M	N	M	N	M	N	M	N
13	62	10	143	17	250	11	236
20	69	384	517	98	331	23	248
31	80	173	306	56	289	46	271
37	86	133	266	36	269	50	275
51	100	255	388	85	318	75	300

Find the relationship between R and S. Then complete each table.

1.

a		b		c		d	
R	S	R	S	R	S	R	S
7	2	15	3	40	3	691	491
13	8	20	8	50	13	578	378
46	41	27	15	70	33	382	182
51	46	32	20	80	43	356	156
68	63	45	33	90	53	291	91

2. Pam is a photographer for a sports magazine. For every sports event that she covers, she uses 9 rolls of film. Here is a chart that shows the number of events she photographed for seven months. Complete the chart to show how many rolls of film she used.

Number of events	8	18	27	34	21	43	50
Rolls of film used	72	162	243	306	189	387	450

Find the relationship between X and Y. Then complete each table.

3.

a		b		c		d	
X	Y	X	Y	X	Y	X	Y
2	6	2	12	1	12	2	16
3	9	3	18	12	144	4	32
5	15	4	24	15	180	8	64
6	18	5	30	17	204	12	96
10	30	10	60	20	240	18	144

4.

X	Y	X	Y	X	Y	X	Y
18	9	7	42	3	24	110	102
37	28	8	48	5	40	107	99
46	37	11	66	7	56	74	66
21	12	13	78	9	72	51	43
13	4	14	84	16	128	30	22

©1976, SRA

Multiply.

	a	b	c	d	e
1.	13 × 5 = 65	52 × 2 = 104	82 × 5 = 410	14 × 6 = 84	67 × 4 = 268
2.	73 × 4 = 292	83 × 5 = 415	27 × 7 = 189	79 × 5 = 395	46 × 5 = 230
3.	17 × 9 = 153	58 × 8 = 464	39 × 9 = 351	35 × 3 = 105	98 × 9 = 882
4.	17 × 20 = 340	24 × 60 = 1440	53 × 70 = 3710	80 × 29 = 2320	42 × 70 = 2940
5.	58 × 60 = 3480	77 × 70 = 5390	87 × 80 = 6960	19 × 20 = 380	25 × 40 = 1000
6.	63 × 12 = 756	46 × 58 = 2668	38 × 61 = 2318	91 × 55 = 5005	57 × 64 = 3648
7.	49 × 15 = 735	51 × 13 = 663	85 × 49 = 4165	77 × 98 = 7546	83 × 79 = 6557

Multiply.

① 27 × 30 = 810	② 56 × 60 = 3360	③ 24 × 20 = 480	④ 19 × 70 = 1330
⑤ 42 × 12 = 504	⑥ 13 × 13 = 169	⑦ 14 × 21 = 294	⑧ 33 × 22 = 726
⑨ 98 × 11 = 1078	⑩ 12 × 12 = 144	⑪ 23 × 11 = 253	⑫ 24 × 12 = 288
⑬ 34 × 23 = 782	⑭ 27 × 18 = 486	⑮ 42 × 25 = 1050	⑯ 28 × 19 = 532
⑰ 82 × 54 = 4428	⑱ 64 × 55 = 3520	⑲ 57 × 38 = 2166	⑳ 89 × 46 = 4094
㉑ 65 × 27 = 1755	㉒ 72 × 36 = 2592	㉓ 77 × 48 = 3696	㉔ 69 × 56 = 3864

©1976, SRA

Multiply.

① 910 × 55 = 50 050

② 242 × 57 = 13 794

③ 670 × 80 = 53 600

④ 478 × 84 = 40 152

⑤ 598 × 57 = 34 086

⑥ 202 × 15 = 3030

⑦ 382 × 42 = 16 044

⑧ 779 × 75 = 58 425

⑨ 144 × 92 = 13 248

⑩ 135 × 59 = 7965

⑪ 519 × 49 = 25 431

⑫ 563 × 92 = 51 796

⑬ 831 × 86 = 71 466

⑭ 842 × 49 = 41 258

⑮ 894 × 71 = 63 474

⑯ 957 × 14 = 13 398

⑰ 483 × 32 = 15 456

⑱ 382 × 87 = 33 234

⑲ 967 × 36 = 34 812

⑳ 659 × 57 = 37 563

㉑ 862 × 100 = 86 200

㉒ 761 × 200 = 152 200

㉓ 471 × 900 = 423 900

㉔ 766 × 900 = 689 400

1. The Scouts were selling apples. They put 6 apples in a bag. Complete the chart to show how many bags of apples they sold each day.

Day	Number of apples	Number in each bag	Number of bags
Monday	360	6	60
Tuesday	342	6	57
Wednesday	288	6	48
Thursday	234	6	39
Friday	438	6	73
Saturday	546	6	91

Find the relationship between A and B. Then complete the table.

2.

a		b		c		d	
A	B	A	B	A	B	A	B
10	1	25	5	33	1	46	1
40	4	65	13	66	2	92	2
30	3	80	16	99	3	184	4
70	7	90	18	132	4	276	6
90	9	105	21	165	5	460	10
110	11	275	55	231	7	506	11

Use the multiplication sentence to complete each division sentence.

Example: $45 \times 5 = 225$ $225 \div 5 =$ 45 $225 \div 45 =$ 5

		a	b
3.	$60 \times 7 = 420$	$420 \div 7 =$ 60	$420 \div 60=$ 7
4.	$56 \times 8 = 448$	$448 \div 8=$ 56	$448 \div 56=$ 8
5.	$73 \times 4 = 292$	$292 \div$ 73 $= 4$	$292 \div 4 =$ 73
6.	$7 \times 28 = 196$	196 $\div 28 = 7$	196 $\div 7 = 28$
7.	$67 \times 8 = 536$	$536 \div$ 67 $= 8$	$536 \div$ 8 $= 67$
8.	$89 \times 9 = 801$	801 $\div 9 = 89$	801 $\div 89 = 9$

©1976, SRA

Divide.

	a	b	c	d
1.	0 ÷ 6 = 0	24 ÷ 6 = 4	63 ÷ 9 = 7	48 ÷ 8 = 6
2.	27 ÷ 3 = 9	99 ÷ 9 = 11	52 ÷ 4 = 13	69 ÷ 3 = 23
3.	66 ÷ 6 = 11	72 ÷ 9 = 8	34 ÷ 2 = 17	80 ÷ 5 = 16
4.	30 ÷ 2 = 15	21 ÷ 1 = 21	30 ÷ 6 = 5	108 ÷ 9 = 12
5.	84 ÷ 7 = 12	90 ÷ 9 = 10	38 ÷ 2 = 19	91 ÷ 7 = 13
6.	96 ÷ 8 = 12	76 ÷ 4 = 19	117 ÷ 9 = 13	54 ÷ 3 = 18
7.	54 ÷ 6 = 9	70 ÷ 5 = 14	42 ÷ 7 = 6	75 ÷ 3 = 25

Divide.

	a	b	c	d	e
8.	9	0	17	12	11
	8)72	8)0	4)68	5)60	7)77
9.	60	16	19	15	16
	1)60	4)64	5)95	8)120	6)96
10.	14	15	13	17	10
	9)126	5)75	8)104	7)119	8)80
11.	6	8	8	15	14
	9)54	7)56	12)96	7)105	8)112
12.	19	40	29	48	11
	3)57	3)120	2)58	2)96	12)132
13.	17	12	7	20	15
	6)102	6)72	8)56	7)140	9)135
14.	20	19	30	20	30
	8)160	6)114	4)120	9)180	8)240

Divide.

① 23 — 2)46

② 21 — 4)84

③ 210 — 4)840

④ 213 — 2)426

⑤ 31 — 6)186

⑥ 93 — 3)279

⑦ 72 — 4)288

⑧ 71 — 5)355

⑨ 40 — 8)320

⑩ 91 — 6)546

⑪ 61 — 4)244

⑫ 90 — 7)630

⑬ 81 — 9)729

⑭ 61 — 7)427

⑮ 80 — 9)720

⑯ 61 — 8)488

©1976, SRA

Complete. Use the largest multiple of ten or one hundred to complete each sentence.

Example: $24 \times \underline{30} < 746$ $12 \times \underline{100} < 1539$

	a	b	c
1.	$46 \times \underline{40} < 1963$	$38 \times \underline{20} < 906$	$14 \times \underline{100} < 1740$
2.	$27 \times \underline{60} < 1754$	$63 \times \underline{20} < 1519$	$21 \times \underline{200} < 4755$
3.	$63 \times \underline{40} < 2961$	$48 \times \underline{30} < 1610$	$54 \times \underline{40} < 2450$
4.	$56 \times \underline{40} < 2279$	$17 \times \underline{30} < 517$	$17 \times \underline{300} < 5170$

Estimate the quotient to the nearest hundred.

	a	b	c	d
5.	$72\overline{)8214}$ → 100	$31\overline{)13800}$ → 400	$68\overline{)12360}$ → 100	$35\overline{)4250}$ → 100
6.	$83\overline{)9308}$ → 100	$24\overline{)4876}$ → 200	$15\overline{)3092}$ → 200	$37\overline{)15725}$ → 400

Complete.

7. $32\overline{)847}$ — 26 R 15

640
207
192
15

8. $45\overline{)5959}$ — 132 R 19

2
30
100
4500
1459
1350
109
90
19

9. $57\overline{)8038}$ — 141 R 1

1
40
100
5700
2338
2280
58
57
1

Divide.

(1) 24)980 40 R20

(2) 21)578 27 R11

(3) 18)414 23

(4) 54)167 3 R5

(5) 36)3350 93 R2

(6) 28)8959 319 R27

(7) 48)9984 208

(8) 73)7879 107 R68

(9) 36)138 3 R30

(10) 62)1762 28 R26

(11) 58)1289 22 R13

(12) 74)2745 37 R7

(13) 19)5004 263 R7

(14) 33)3152 95 R17

(15) 93)4381 47 R10

(16) 31)1255 40 R15

©1976, SRA

1. Compute. Watch the operation signs.

a $3555 - 1240 = 2315$

b $7447 - 5724 = 1723$

c $9624 - 6686 = 2938$

d $8271 - 5757 = 2514$

e $6236 + 7953 = 14\,189$

f $3760 + 5197 = 8957$

g $6216 + 2668 = 8884$

h $5596 + 6538 = 12\,134$

2. Multiply.

a $37 \times 20 = 740$

b $67 \times 84 = 5628$

c $735 \times 53 = 38\,955$

d $714 \times 86 = 61\,404$

3. Divide.

a $8\overline{)568}$ 71

b $6\overline{)549}$ 91 R3

c $31\overline{)657}$ 21 R6

d $21\overline{)5259}$ 250 R9

4. Correct any errors you find.

a

$$\begin{array}{r} 4000 \\ -\ 478 \\ \hline 3522 \end{array}$$

O.K.

b

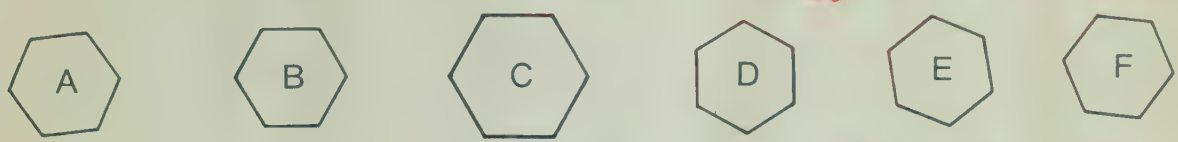
$$\begin{array}{r} 706 \\ \times\ 50 \\ \hline \cancel{3530} \\ 35\,300 \end{array}$$

c

$$\begin{array}{r} 4058 \\ +\ 5943 \\ \hline \cancel{9901} \\ 10\,001 \end{array}$$

Name the figure that does not belong. Then tell why it doesn't belong. (Hint: Take a sheet of paper and trace one figure. Match it with the other figures to test if they are the same size and shape.)

1. D doesn't belong because it is a different shape.

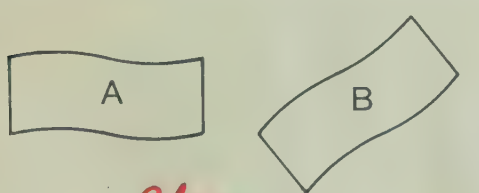


2. C doesn't belong because it is a different size.

3. B doesn't belong because it is a different size.

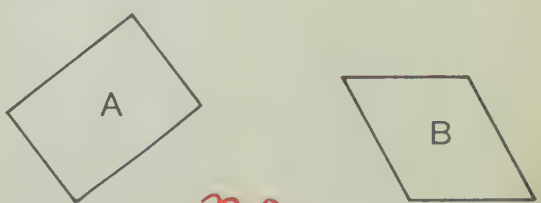
Look at each pair of figures.
Is figure A the same size and shape as figure B? (You may trace.)

4.



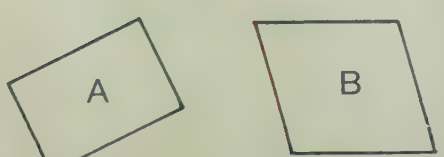
Yes

5.



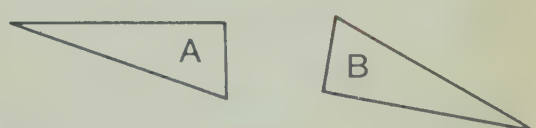
no

6.



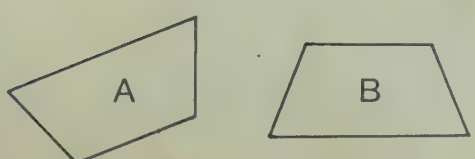
no

7.



Yes

8.



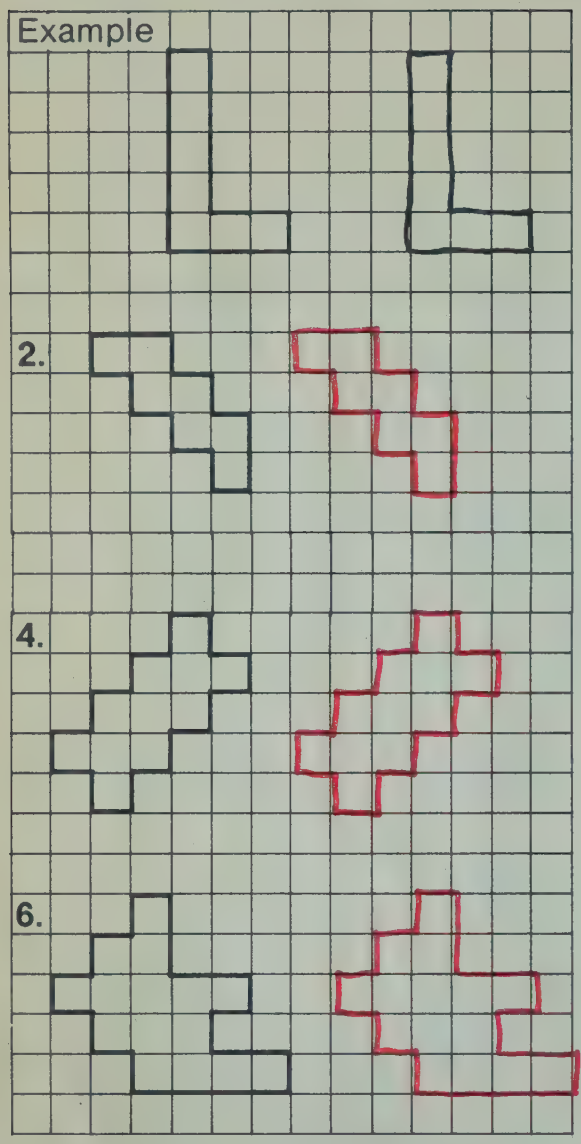
Yes

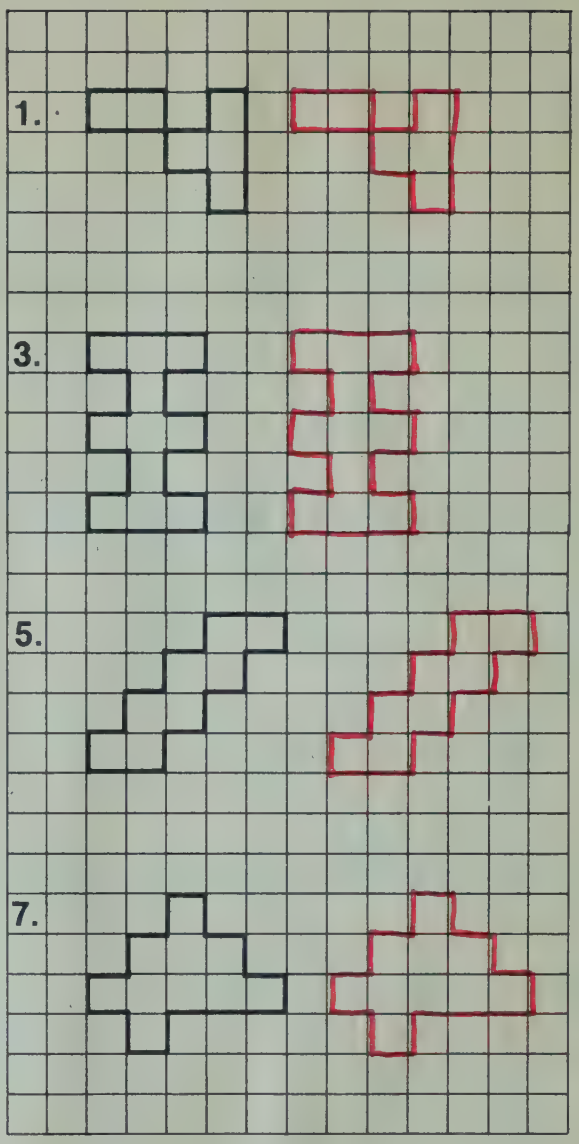
9.

no

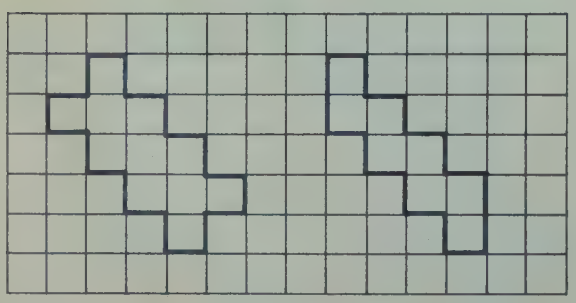
©1976, SRA

Make a copy of each figure.

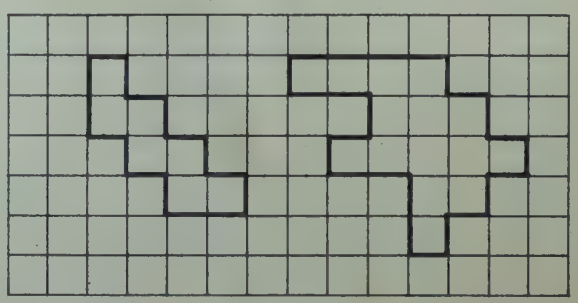




8. Each shape below matches one of the figures above. Write the number of the figure that matches each shape. (Trace to make sure.)

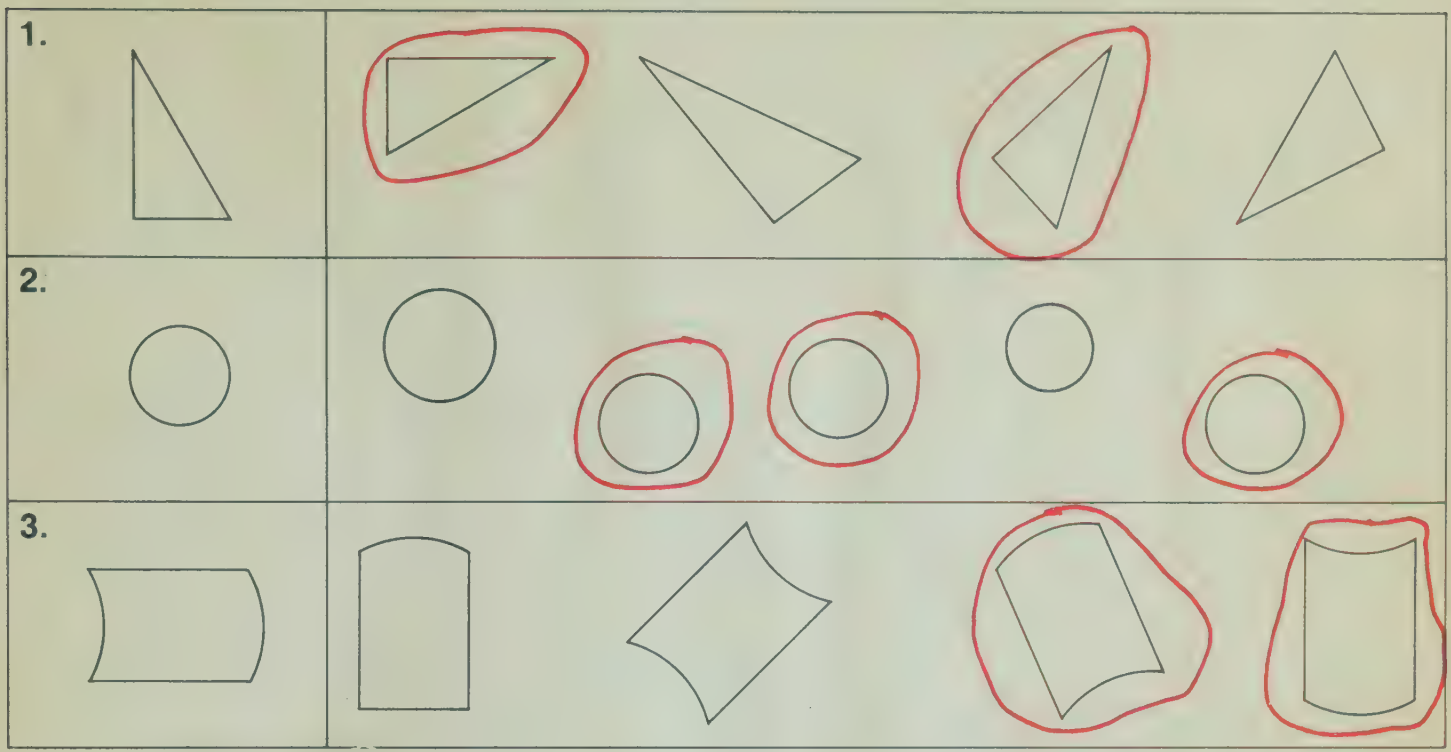


4 5

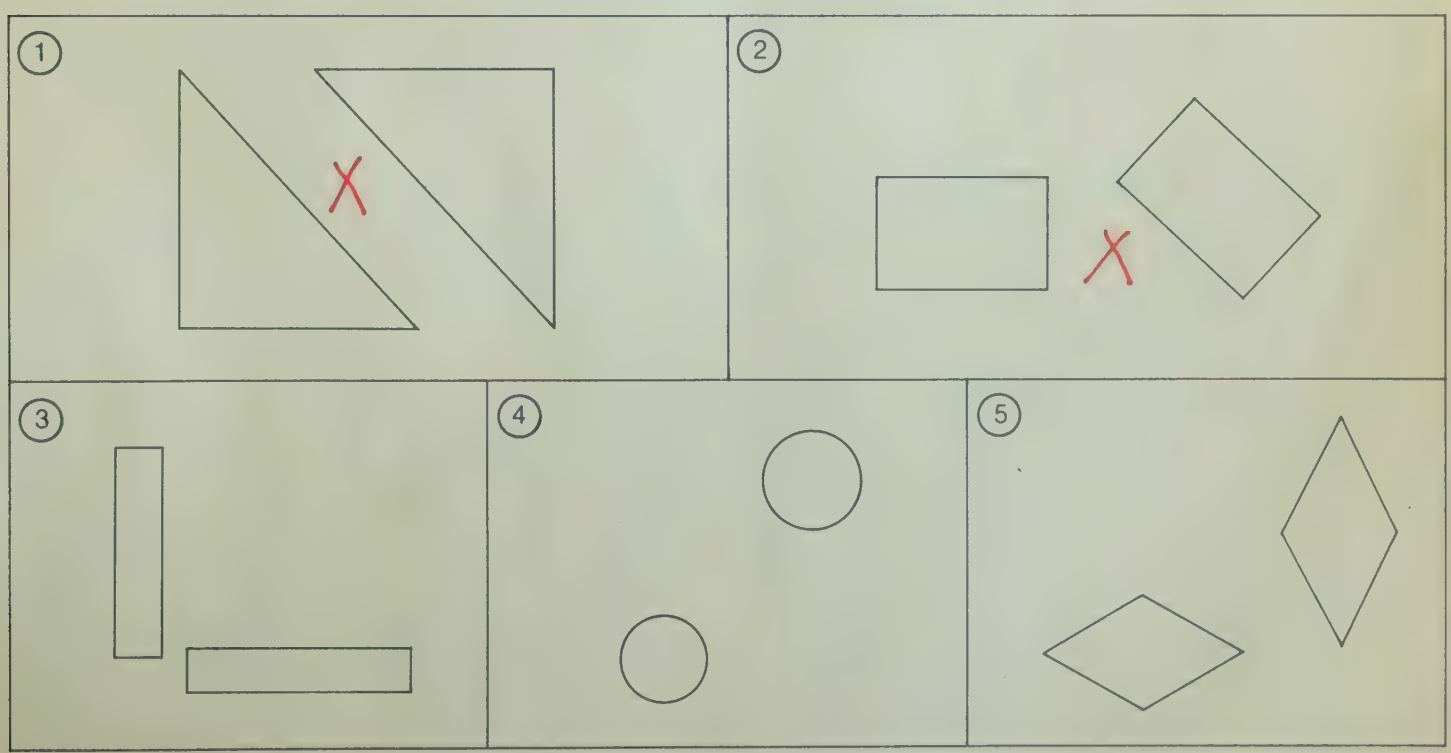


2 6

In each row ring the figures that are congruent with the one in the box.



Trace each pair of figures. Mark those pairs that are congruent.



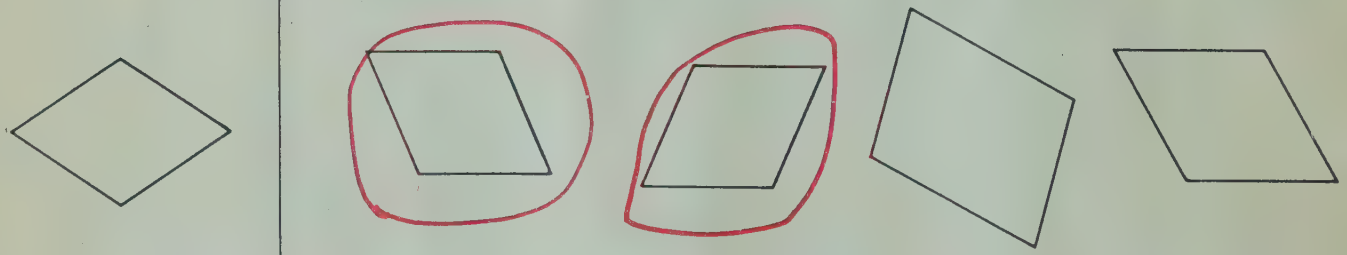
©1976, SRA

In each row ring the figures that are congruent with the one in the box.

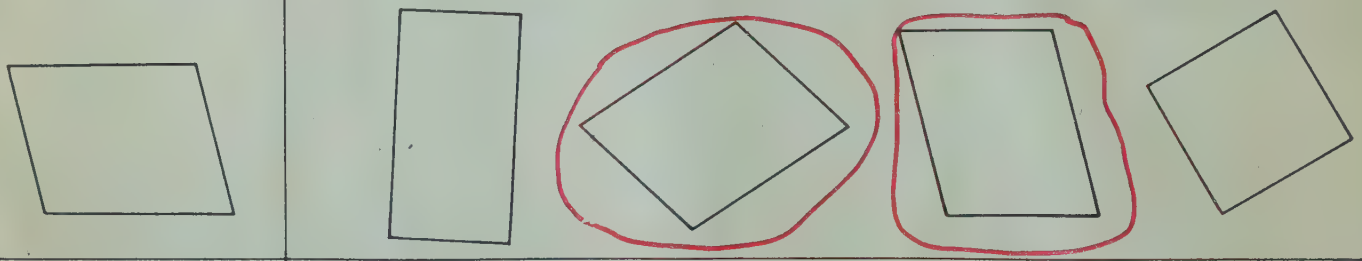
1.

2.

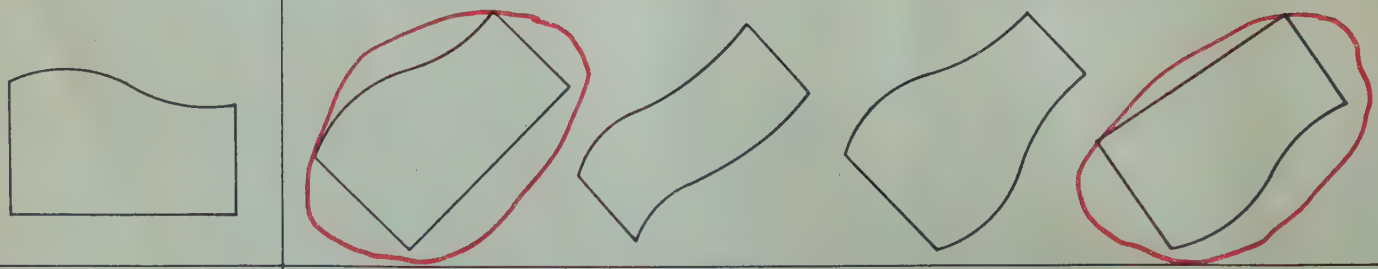
3.



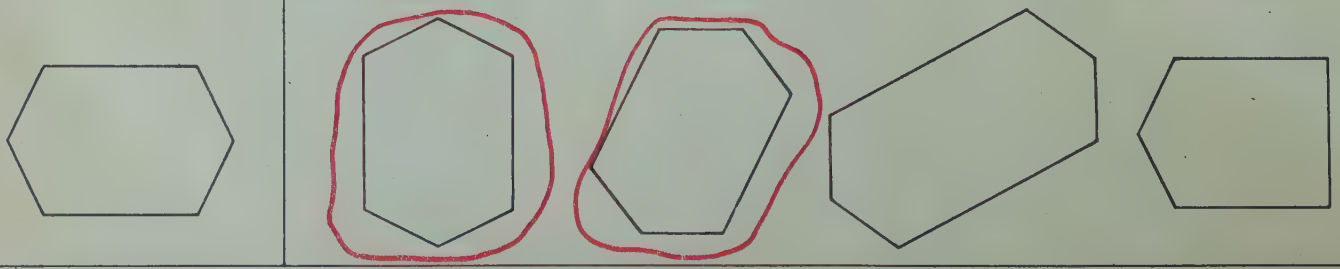
4.



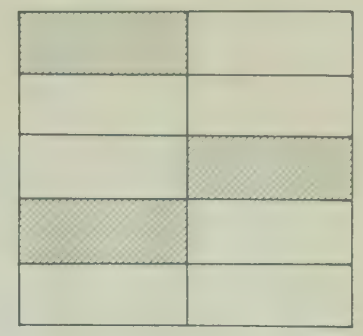
5.



6.



1. Three of the ten parts of this region are shaded. This can be written as a *fraction* or as a *decimal.* Complete the chart.



	Shaded	Unshaded
Fraction	$\frac{3}{10}$	$\frac{7}{10}$
Decimal	0.3	0. 7

2. Express each fraction as a decimal. Complete the table.

Fraction	$\frac{1}{10}$	$\frac{2}{10}$	$\frac{4}{10}$	$\frac{1}{100}$	$\frac{24}{100}$	$\frac{37}{100}$	$\frac{42}{100}$	$\frac{1}{1000}$	$\frac{11}{1000}$	$\frac{421}{1000}$
Decimal	0.1	0.2	0.4	0.01	0.24	0.37	0.42	0.001	0.011	0.421

3. Express each decimal as a fraction. Complete the table.

Decimal	0.6	0.7	0.8	0.06	0.07	0.63	0.84	0.006	0.073	0.467
Fraction	$\frac{6}{10}$	$\frac{7}{10}$	$\frac{8}{10}$	$\frac{6}{100}$	$\frac{7}{100}$	$\frac{63}{100}$	$\frac{84}{100}$	$\frac{6}{1000}$	$\frac{73}{1000}$	$\frac{467}{1000}$

Write a decimal for each.

	a	b	c
4.	6 tenths 0.6	38 hundredths 0.38	342 thousandths 0.342
5.	1 tenth 0.1	65 hundredths 0.65	536 thousandths 0.536
6.	8 tenths 0.8	8 hundredths 0.08	14 thousandths 0.014
7.	4 tenths 0.4	97 hundredths 0.97	2 thousandths 0.002

Use >, <, or = to make each sentence true.

	a	b	c	d
8.	$\frac{5}{10}$ (>) $\frac{6}{100}$	$\frac{80}{100}$ (=) $\frac{8}{10}$	3 (>) $\frac{4}{10}$	$\frac{6}{100}$ (<) $\frac{8}{100}$
9.	0.4 (<) 0.5	0.6 (>) 0.06	0.70 (>) 0.07	5.0 (>) 0.70
10.	0.30 (<) 3	0.15 (>) 0.08	0.9 (=) 0.90	0.6 (<) 3.0

©1976, SRA

Write each fraction as a decimal.

	a	b	c	d
1.	$\frac{3}{10} =$ 0.3	$\frac{6}{100} =$ 0.06	$\frac{37}{100} =$ 0.37	$\frac{7}{10} =$ 0.7
2.	$\frac{7}{100} =$ 0.07	$\frac{99}{100} =$ 0.99	$\frac{1}{10} =$ 0.1	$\frac{333}{1000} =$ 0.333
3.	$\frac{1}{1000} =$ 0.001	$\frac{21}{100} =$ 0.21	$\frac{66}{100} =$ 0.66	$\frac{4}{10} =$ 0.4
4.	$\frac{9}{10} =$ 0.9	$\frac{473}{1000} =$ 0.473	$\frac{4}{100} =$ 0.04	$\frac{15}{1000} =$ 0.015
5.	$\frac{43}{100} =$ 0.43	$\frac{52}{1000} =$ 0.052	$\frac{37}{1000} =$ 0.037	$\frac{78}{1000} =$ 0.078

Write each decimal as a fraction.

	a	b	c	d
6.	0.29 = $\frac{29}{100}$	0.2 = $\frac{2}{10}$	0.38 = $\frac{38}{100}$	0.006 = $\frac{6}{1000}$
7.	0.5 = $\frac{5}{10}$	0.83 = $\frac{83}{100}$	0.916 = $\frac{916}{1000}$	0.68 = $\frac{68}{100}$
8.	0.516 = $\frac{516}{1000}$	0.65 = $\frac{65}{100}$	0.22 = $\frac{22}{100}$	0.8 = $\frac{8}{10}$
9.	0.42 = $\frac{42}{100}$	0.728 = $\frac{728}{1000}$	0.18 = $\frac{18}{100}$	0.25 = $\frac{25}{100}$
10.	0.5 = $\frac{5}{10}$	0.21 = $\frac{21}{100}$	0.073 = $\frac{73}{1000}$	0.111 = $\frac{111}{1000}$

Write a decimal for each.

	a	b
11.	37 and 428 thousandths 37.428	429 and 37 hundredths 429.37
12.	106 and 7 hundredths 106.07	56 and 4 tenths 56.4
13.	1 and 82 hundredths 1.82	23 thousandths 0.023
14.	103 and 2 tenths 103.2	9 and 97 hundredths 9.97
15.	81 and 9 thousandths 81.009	6 and 31 hundredths 6.31

16. Forty-three and two hundred fifty-one thousandths 43.251
17. Seventy-one and seventy-six hundredths 71.76
18. Eighty-five and two hundred six thousandths 85.206
19. Three hundred forty-six and ninety-one thousandths 346.091

Write each set of decimals in order from smallest to largest.

1. 4.50, 0.45, 45.0, 0.045, 0.004 — 0.004, 0.045, 0.45, 4.50, 45.0
2. 0.12, 0.23, 0.29, 0.063, 0.093 — 0.063, 0.093, 0.12, 0.23, 0.29
3. 3.46, 30.6, 3.7, 3.30, 3.07 — 3.07, 3.30, 3.46, 3.7, 30.6
4. 0.58, 1.1, 2.40, 0.799, 0.91 — 0.58, 0.799, 0.91, 1.1, 2.40
5. 0.21, 0.72, 0.002, 0.7, 0.71 — 0.002, 0.21, 0.7, 0.71, 0.72
6. 6.05, 0.15, 0.115, 0.2, 0.51 — 0.115, 0.15, 0.2, 0.51, 6.05
7. 2.763, 276.3, 27.63, 276.0 — 2.763, 27.63, 276.0, 276.3

Use >, <, or = to make each sentence true.

	a	b	c
8.	1.10 > 0.968	0.999 < 1.0	3.12 > 3.057
9.	5 = 5.00	0.016 < 0.06	0.05 < 0.2
10.	0.99 < 1	6.02 < 6.1	1.33 < 1.338
11.	0.06 < 0.6	0.5 < 0.87	0.02 > 0.002
12.	1.010 < 10.10	0.1 > 0.08	6.04 = 6.040
13.	0.6 > 0.055	1.500 = 1.5	0.08 < 0.081
14.	0.35 > 0.076	0.6 = 0.600	1.0 > 0.639
15.	0.5 < 0.506	0.02 > 0.008	0.370 < 0.9
16.	0.91 = 0.910	0.3 = 0.300	1.32 > 0.897

Ring each decimal or fraction that is equal to or greater than one.

	a	b	c	d	e	f
17.	1.00	1.0	0.976	0.9	0.76	1.001
18.	0.111	0.895	1.032	10.0	0.1	0.333
19.	$\frac{1000}{1000}$	$\frac{9}{10}$	$\frac{100}{100}$	$\frac{999}{1000}$	$\frac{10}{10}$	$\frac{51}{100}$

©1976, SRA

Complete.

① 0.425 = 4 tenths, 2 hundredths, 5 thousandths

② 0.568 = 5 tenths, 6 hundredths, 8 thousandths

③ 0.307 = 3 tenths, 0 hundredths, 7 thousandths

④ 5.137 = 5 ones, 1 tenths, 3 hundredths, 7 thousandths

⑤ 0.479 = 4 tenths, 7 hundredths, 9 thousandths

⑥ 0.506 = 5 tenths, 0 hundredths, 6 thousandths

⑦ 0.031 = 0 tenths, 3 hundredths, 1 thousandth

⑧ 7.96 = 7 ones, 9 tenths, 6 hundredths

Complete. Answers will vary.

⑨ Name two decimals between 0.320 and 0.330. 0.325, 0.327

⑩ Name two decimals between 0.08 and 0.15. 0.09, 0.12

⑪ Name two decimals between 0.510 and 0.520. 0.515, 0.517

⑫ Name two decimals between 0.025 and 0.030. 0.026, 0.028

⑬ Name two decimals between 0.43 and 0.44. 0.432, 0.438

⑭ Name two decimals between 0.7 and 0.8. 0.73, 0.77

Write each as a decimal.

⑮ $\frac{7}{10}$ = 0.7 ⑯ $\frac{34}{100}$ = 0.34 ⑰ $\frac{27}{1000}$ = 0.027 ⑱ $\frac{12}{100}$ = 0.12

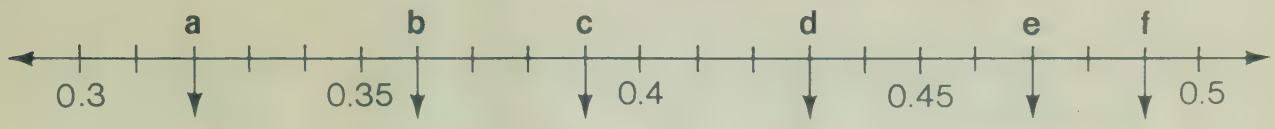
⑲ $\frac{143}{1000}$ = 0.143 ⑳ $\frac{69}{100}$ = 0.69 ㉑ $\frac{2}{1000}$ = 0.002 ㉒ $\frac{10}{100}$ = 0.10

Write each as a fraction.

㉓ 0.4 = $\frac{4}{10}$ ㉔ 0.58 = $\frac{58}{100}$ ㉕ 0.678 = $\frac{678}{1000}$ ㉖ 0.07 = $\frac{7}{100}$

㉗ 0.26 = $\frac{26}{100}$ ㉘ 0.009 = $\frac{9}{1000}$ ㉙ 0.265 = $\frac{265}{1000}$ ㉚ 0.037 = $\frac{37}{1000}$

1. Write each of these decimals in its correct place on the number line: 0.32, 0.47, 0.36, 0.43, 0.39, 0.49



0.32 0.36 0.39 0.43 0.47 0.49

Ring the correct answer. Use the number line above if you need help.

	a	b
2.	Is 0.32 closer to 0.3 or 0.4?	Is 0.47 closer to 0.4 or 0.5?
3.	Is 0.36 closer to 0.3 or 0.4?	Is 0.43 closer to 0.4 or 0.5?
4.	Is 0.39 closer to 0.3 or 0.4?	Is 0.49 closer to 0.4 or 0.5?
5.	Is 0.327 closer to 0.3 or 0.4?	Is 0.457 closer to 0.4 or 0.5?
6.	Is 0.319 closer to 0.3 or 0.4?	Is 0.449 closer to 0.4 or 0.5?

Round to the nearest tenth.

	a	b	c	d
7.	0.63 0.6	0.19 0.2	0.62 0.6	0.25 0.3
8.	0.91 0.9	0.33 0.3	0.57 0.6	0.46 0.5
9.	6.24 6.2	9.71 9.7	2.67 2.7	5.18 5.2
10.	0.107 0.1	0.865 0.9	0.209 0.2	0.638 0.6
11.	0.55 0.6	1.992 2.0	8.068 8.1	0.30 0.3

Round to the nearest hundredth.

	a	b	c	d
12.	0.233 0.23	0.639 0.64	0.768 0.77	2.009 2.01
13.	0.756 0.76	0.899 0.90	0.264 0.26	9.091 9.09
14.	6.291 6.29	0.182 0.18	0.593 0.59	0.207 0.21
15.	0.413 0.41	1.684 1.68	0.796 0.80	0.855 0.86
16.	0.555 0.56	0.377 0.38	7.339 7.34	9.999 10.00

©1976, SRA

Round to the nearest whole number.

	a	b	c	d
1.	6.379 6	11.513 12	26.823 27	46.097 46
2.	14.48 14	4.77 5	8.276 8	19.862 20

Round to the nearest tenth.

① 0.67 rounds to 0.7 ② 0.89 rounds to 0.9 ③ 0.54 rounds to 0.5

Round to the nearest hundredth.

④ 0.326 rounds to 0.33 ⑤ 0.294 rounds to 0.29 ⑥ 0.093 rounds to 0.09

Round to the nearest whole number.

⑦ 15.173 rounds to 15 ⑧ 1.821 rounds to 2 ⑨ 7.098 rounds to 7

Ring the smaller number.

⑩ 0.6 or 0.9 ⑪ 0.07 or 0.70 ⑫ 0.356 or 0.363

⑬ 0.432 or 0.45 ⑭ 0.83 or 0.084 ⑮ 7.91 or 7.911

Write each set of decimals in order from smallest to largest.

⑯ 0.8, 0.231, 0.11, 0.59, 0.471 — 0.11, 0.231, 0.471, 0.59, 0.8

⑰ 0.3, 0.53, 3.0, 0.35, 0.035 — 0.035, 0.3, 0.35, 0.53, 3.0

⑱ 0.17, 17.0, 0.017, 1.70, 0.007 — 0.007, 0.017, 0.17, 1.70, 17.0

⑲ 0.003, 0.03, 3.00, 0.30, 30.0 — 0.003, 0.03, 0.30, 3.00, 30.0

Round to the nearest whole number and estimate the sum.

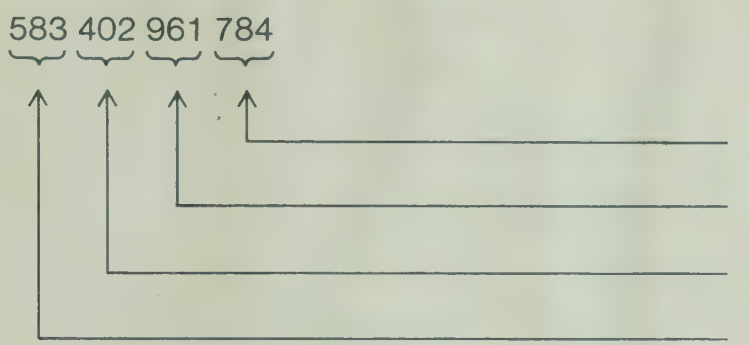
⑳ 6.3 + 5.8 = ? 6 + 6 = 12

㉑ 4.491 + 3.6 = ? 4 + 4 = 8

㉒ 1.689 + 5.721 = ? 2 + 6 = 8

Complete.

1. 5 697 524 312 — 5 billions 697 millions 524 thousands 312 ones
2. 36 735 264 172 — 36 billions 735 millions 264 thousands 172 ones
3. 692 914 285 534 — 692 billions 914 millions 285 thousands 534 ones
4. 427 602 808 437 — 427 billions 602 millions 808 thousands 437 ones
5. Tell the value of each group of digits.



784 ones
961 thousands
402 millions
583 billions

Write a numeral for each.

	a	b
6.	one million 1 000 000	five thousands 5000
7.	seven billions 7 000 000 000	two hundred millions 200 000 000
8.	six hundred thousands 600 000	ninety thousands 90 000
9.	eight hundreds 800	twenty millions 20 000 000

Round to the nearest million.

	a	b
10.	873 468 215 873 000 000	58 803 455 59 000 000
11.	26 268 312 26 000 000	439 972 893 440 000 000

Round to the nearest billion.

	a	b
12.	6 430 187 674 6 000 000 000	53 577 204 003 54 000 000 000
13.	85 726 815 133 86 000 000 000	936 357 462 921 936 000 000 00

©1976, SRA

Write the exponent form for each.

	a	b
1.	10^2 10×10	10^3 $10 \times 10 \times 10$
2.	10^5 $10 \times 10 \times 10 \times 10 \times 10$	10^6 $10 \times 10 \times 10 \times 10 \times 10 \times 10$
3.	10^4 $10 \times 10 \times 10 \times 10$	10^1 10

Write the standard numeral for each.

	a	b	c
4.	10^4 10 000	10^5 100 000	10^6 1 000 000
5.	10^1 10	10^8 100 000 000	10^3 1 000
6.	10^7 10 000 000	10^2 100	10^9 1 000 000 000

A number can be expressed four different ways.
Standard numeral: 1 000 000
Written form: one million
Factor form: $10 \times 10 \times 10 \times 10 \times 10 \times 10$
Exponent form: 10^6

7. Which form would be easiest to use to write a large number? Exponent form

Complete the table below.

	Standard numeral	Written form	Factor form	Exponent form
Ex.	10	ten	10	10^1
8.	10 000 000	ten million	10 x 10 x 10 x 10 x 10 x 10 x 10	10^7
9.	100 000	one hundred thousand	10 x 10 x 10 x 10 x 10	10^5
10.	10 000	ten thousand	10 x 10 x 10 x 10	10^4
11.	1000	one thousand	10 x 10 x 10	10^3
12.	100 000 000	one hundred million	$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10$	10^8
13.	100	one hundred	10 x 10	10^2

Use >, <, or = to complete each number sentence.

	a	b	c
14.	10^3 (<) 10^4	10^3 (=) $10 \times 10 \times 10$	1000 (<) 10^4
15.	10^5 (=) 100 000	10^5 (>) 10 000	$10 \times 10 \times 10$ (<) 10^6
16.	10^7 (>) $10 \times 10 \times 10 \times 10$	10^1 (=) 10	100 (<) 10^3

Write each product, using an exponent. Example: 3^4 = 3 × 3 × 3 × 3

① 6^4 = 6 × 6 × 6 × 6

② 9^5 = 9 × 9 × 9 × 9 × 9

③ 20^3 = 20 × 20 × 20

④ 2^2 = 2 × 2

⑤ 4^2 = 4 × 4

⑥ 8^6 = 8 × 8 × 8 × 8 × 8 × 8

⑦ 15^3 = 15 × 15 × 15

⑧ 10^6 = 10 × 10 × 10 × 10 × 10 × 10

⑨ 7^5 = 7 × 7 × 7 × 7 × 7

⑩ 2^9 = 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2

Write each number as the product of equal factors. Example: 5^2 = 5 × 5

⑪ 8^2 = 8×8

⑫ 10^1 = 10

⑬ 7^6 = 7×7×7×7×7×7

⑭ 4^4 = 4×4×4×4

⑮ 5^4 = 5×5×5×5

⑯ 6^9 = 6×6×6×6×6×6×6×6×6

⑰ 2^3 = 2×2×2

⑱ 11^2 = 11×11

Write each number in standard-numeral form.

⑲ 1^7 = 1 ⑳ 7^3 = 343 ㉑ 3^4 = 81 ㉒ 2^5 = 32 ㉓ 12^2 = 144

㉔ Complete the table.

Standard numeral	Product of equal factors	Written with an exponent
729	9×9×9	9^3
27	3 × 3 × 3	3^3
25	5×5	5^2
32	2 × 2 × 2 × 2 × 2	2^5
9	3×3	3^2
125	5×5×5	5^3

©1976, SRA

1. Write a decimal for each.

a 3.4 three and four tenths

b 0.92 ninety-two hundredths

c 0.007 seven thousandths

d 83.2 83 and 2 tenths

e 70.037 70 and 37 thousandths

f 0.207 207 thousandths

g 0.04 four hundredths

h 42.091 42 and 91 thousandths

2. Write a decimal for each.

a $\frac{7}{10}$ = 0.7 **b** $\frac{67}{100}$ = 0.67 **c** $\frac{34}{1000}$ = 0.034 **d** $\frac{7}{100}$ = 0.07

3. Write a fraction for each.

a 0.3 = $\frac{3}{10}$ **b** 0.008 = $\frac{8}{1000}$ **c** 0.78 = $\frac{78}{100}$ **d** 0.706 = $\frac{706}{1000}$

4. Complete the table. Round each number to the nearest hundredth, tenth, and whole number.

	hundredth	tenth	whole number
a 5.367	5.37	5.4	5
b 19.325	19.33	19.3	19
c 34.456	34.46	34.5	34
d 16.381	16.38	16.4	16
e 83.725	83.73	83.7	84
f 56.561	56.56	56.6	57
g 21.467	21.47	21.5	21
h 139.926	139.93	139.9	140

5. Write the standard numeral for each.

a 10^4 = 10 000 **b** 3^3 = 27 **c** 7^2 = 49 **d** 6^3 = 216

1. Use the place-value chart to complete each sentence.

Example: The 3 is equal to 3 × 10 × 10 × 10 or 3000.

a The 2 is equal to 2 × 0.001 or 0.002.

b The 7 is equal to 7 × 10 or 70.

c The 8 is equal to 8 × 10 × 10 or 800.

d The 0 is equal to 0 × 1 or 0.

e The 9 is equal to 9 × 0.01 or 0.09.

f The 1 is equal to 1 × 0.1 or 0.1.

1 × 10 × 10 × 10	1 × 10 × 10	1 × 10	1	1 × 0.1	1 × 0.01	1 × 0.001
thousands	hundreds	tens	ones	tenths	hundredths	thousandths
3	8	7	0	1	9	2

Complete each sentence. Use the chart above if you need help.

Example: 3.017 = 3×1 + 0×0.1 + 1×0.01 + 7×0.001

2. 4.235 = 4×1 + 2×0.1 + 3×0.01 + 5×0.001

3. 1.678 = 1×1 + 6×0.1 + 7×0.01 + 8×0.001

4. 6.543 = 6×1 + 5×0.1 + 4×0.01 + 3×0.001

5. 12.62 = 1×10 + 2×1 + 6×0.1 + 2×0.01

6. 54.49 = 5×10 + 4×1 + 4×0.1 + 9×0.01

7. 256.8 = 2×100 + 5×10 + 6×1 + 8×0.1

Order each set of decimals from smallest to largest.

(1) 3.6, 0.97, 0.820, 0.099, 3.65 — 0.099, 0.820, 0.97, 3.6, 3.65

(2) 0.22, 0.32, 0.23, 33, 233 — 0.22, 0.23, 0.32, 33, 233

(3) 0.417, 0.71, 0.41, 0.009, 0.471 — 0.009, 0.41, 0.417, 0.471, 0.71

(4) 1.3, 1.31, 0.113, 1.0, 1.11 — 0.113, 1.0, 1.11, 1.3, 1.31

(5) 7.00, 7.01, 70.1, 0.701, 0.007 — 0.007, 0.701, 7.00, 7.01, 70.1

(6) 5.75, 5.17, 0.517, 51.7, 0.571 — 0.517, 0.571, 5.17, 5.75, 51.7

©1976, SRA

1. Make each sentence true. Use the table if you need help.

Example: 4 km = 4000 m

a 2000 mm = 2 m

b 10 dm = 1 m

c 500 cm = 5 m

d 30 dam = 300 m

e 600 hm = 60 000 m

f 100 cm = 1 m

kilometre (km) = 1000 m
hectometre (hm) = 100 m
decametre (dam) = 10 m
metre (m) = 1 m
decimetre (dm) = 0.1 m
centimetre (cm) = 0.01 m
millimetre (mm) = 0.001 m

2. Complete the table. Make the distances in each column equal.

	Example	a	b	c	d	e
metres	5000	3000	80	200	6	51
decametres	500	300	8	20	0.6	5.1
hectometres	50	30	0.8	2	0.06	0.51
kilometres	5	3	0.08	0.2	0.006	0.051

3. Complete the table. Make the distances in each column equal.

	Example	a	b	c	d	e
metres	3	7	0.15	0.6	0.04	0.089
decimetres	30	70	1.5	6	0.4	0.89
centimetres	300	700	15	60	4	8.9
millimetres	3000	7000	150	600	40	89

Solve.

4. Bill caught a fish 297 mm long.
Was his fish longer than 3 dm or shorter? shorter

5. Anna has a rope 48 m long.
Is this longer than 0.1 km or shorter? shorter

6. Gladys ran 715 m .
Is this more than 7 km or less? less

Add.

	a	b	c	d	e	f
1.	0.5 + 0.1 = 0.6	0.8 + 0.9 = 1.7	0.3 + 0.8 = 1.1	3.8 + 0.8 = 4.6	6.7 + 0.8 = 7.5	1.7 + 0.4 = 2.1
2.	1.1 + 0.8 = 1.9	6.4 + 0.4 = 6.8	2.1 + 0.7 = 2.8	4.34 + 5.28 = 9.62	5.46 + 9.35 = 14.81	1.45 + 4.23 = 5.68
3.	1.62 + 3.56 = 5.18	1.87 + 4.57 = 6.44	2.95 + 9.28 = 12.23	4.118 + 4.978 = 9.096	1.756 + 5.744 = 7.500	8.773 + 3.469 = 12.242

4. Remember to keep all decimal points in a straight line when adding.

   a 3.6 + 8.45 = 12.05

   b 4.73 + 2.6 + 9.08 = 16.41

   c 3.6 + 5.07 + 8.04 = 16.71

   d 4.96 + 9.32 + 4.7 = 18.98

Solve.

5. Bob's odometer showed he had ridden 7.6 km on Monday.
   He rode 0.6 km on Tuesday.
   How far did he ride both days? 8.2 km

6. On Saturday he rode 8.6 km .
   He rode 9.5 km on Sunday.
   How far did he ride during the weekend? 18.1 km

7. John rode Bob's bicycle 3.7 km .
   Bob rode the bicycle 14.4 km .
   How far did the two boys ride the bicycle? 18.1 km

©1976, SRA

Subtract.

	a	b	c	d	e	f
1.	0.6 − 0.2 = 0.4	0.8 − 0.3 = 0.5	0.9 − 0.6 = 0.3	3.2 − 0.2 = 3.0	1.0 − 0.7 = 0.3	6.8 − 0.3 = 6.5
2.	5.9 − 0.9 = 5.0	7.3 − 0.4 = 6.9	4.6 − 0.6 = 4.0	1.56 − 1.43 = 0.13	4.63 − 1.59 = 3.04	8.94 − 6.74 = 2.20
3.	6.56 − 1.92 = 4.64	3.65 − 2.75 = 0.90	8.51 − 2.93 = 5.58	3.043 − 2.644 = 0.399	5.376 − 3.681 = 1.695	7.291 − 1.982 = 5.309

4. Remember to keep all decimal points aligned when subtracting.

   a 4.2 − 3.26 = 0.94

   b 5 − 0.73 = 4.27

   c 6.05 − 3.4 = 2.65

   d 2.7 − 1.06 = 1.64

Solve.

5. Jill rode 7.9 km.
   Martha rode 4.5 km.
   How much farther did Jill ride? 3.4 km

6. Alice rode 9.2 km.
   How much farther did she ride than Jill? 1.3 km

7. How much farther did Alice ride than Martha? 4.7 km

Add.

① 9.01 + 1.33 = 10.34	② 6.08 + 3.62 = 9.70	③ 7.28 + 3.16 = 10.44	④ 5.17 + 1.29 = 6.46	⑤ 3.79 + 1.14 = 4.93
⑥ 4.77 + 3.24 = 8.01	⑦ 8.62 + 5.68 = 14.30	⑧ 9.98 + 3.35 = 13.33	⑨ 12.69 + 4.85 = 17.54	⑩ 18.77 + 25.53 = 44.30

Subtract.

⑪ 9.79 − 7.63 = 2.16	⑫ 4.73 − 2.08 = 2.65	⑬ 9.56 − 5.07 = 4.49	⑭ 5.81 − 2.48 = 3.33	⑮ 7.53 − 3.24 = 4.29
⑯ 3.06 − 2.47 = 0.59	⑰ 8.25 − 5.76 = 2.49	⑱ 13.42 − 6.98 = 6.44	⑲ 10.00 − 6.88 = 3.12	⑳ 72.61 − 54.72 = 17.89

Compute. Be careful.

㉑ 9.132 + 1.224 = 10.356	㉒ 5.206 − 3.201 = 2.005	㉓ 4.301 + 3.515 = 7.816	㉔ 4.727 + 2.392 = 7.119	㉕ 6.308 − 3.588 = 2.720
㉖ 8.071 − 1.876 = 6.195	㉗ 6.287 + 2.945 = 9.232	㉘ 3.623 + 4.298 = 7.921	㉙ 5.528 + 9.109 = 14.637	㉚ 5.211 − 2.453 = 2.758

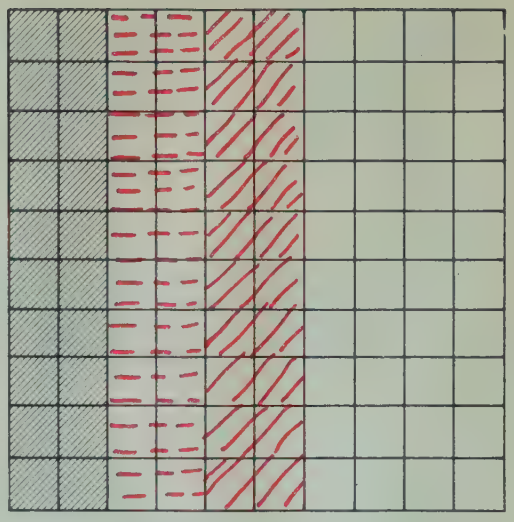
㉛ Here is some of Phil's homework.
Find his errors. Then correct them.

9.324 − 1.753 = 8.431	9.324 − 1.753 = 7.571	5.774 + 2.362 = 7.036	5.774 + 2.362 = 8.136

©1976, SRA

Complete.

1. What decimal part of the region is shaded? 0.20 or 0.2



2. Shade another 0.2 of the region. What part of the region is now shaded? 0.40 or 0.4

3. Shade still another 0.2 of the region. What part of the region is shaded now? 0.60 or 0.6

4. **a** $0.2 + 0.2 + 0.2 =$ 0.6 **b** $3 \times 0.2 =$ 0.6

Remember:
whole number × tenths = tenths

0.8←tenths
× 4←whole number
3.2←tenths

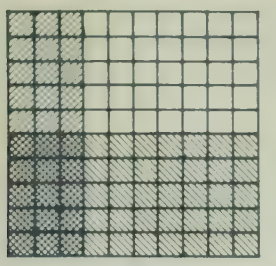
2.3←tenths
× 3←whole number
6.9←tenths

Try these. Watch the operation signs.

	a	b	c	d	e	f
5.	0.4 + 0.4 0.8	0.4 × 2 0.8	0.5 0.5 + 0.5 1.5	0.5 × 3 1.5	0.7 0.7 + 0.7 2.1	0.7 × 3 2.1
6.	2.5 2.5 + 2.5 7.5	2.5 × 3 7.5	0.8 + 0.8 1.6	0.8 × 2 1.6	1.1 1.1 + 1.1 3.3	1.1 × 3 3.3
7.	1.4 × 5 7.0	2.8 × 2 5.6	1.9 × 4 7.6	3.9 × 2 7.8	3.5 × 2 7.0	1.8 × 5 9.0

1. Multiply. Shade in the square to show the answer.

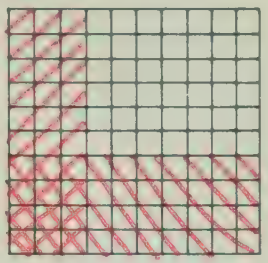
Example



0.5 of 0.3 square

$0.5 \times 0.3 = 0.15$

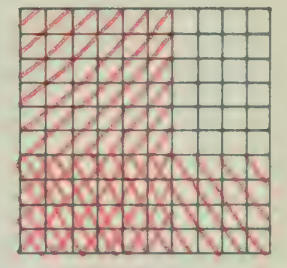
a



0.3 of 0.4 square

$0.3 \times 0.4 = 0.12$

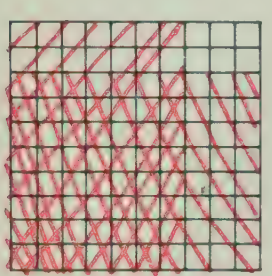
b



0.6 of 0.4 square

$0.6 \times 0.4 = 0.24$

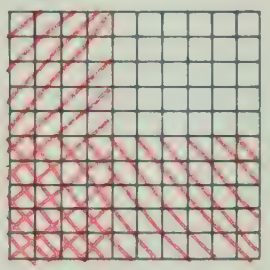
c



0.7 of 0.8 square

$0.7 \times 0.8 = 0.56$

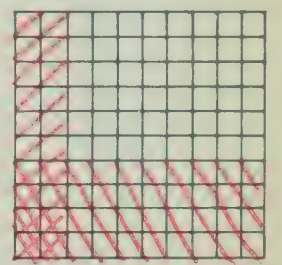
d



0.4 of 0.5 square

$0.4 \times 0.5 = 0.20$

e



0.2 of 0.4 square

$0.2 \times 0.4 = 0.08$

Remember:

tenths × tenths = hundredths

$$\begin{array}{r} 0.5 \leftarrow \text{tenths} \\ \times\ 0.7 \leftarrow \text{tenths} \\ \hline 0.35 \leftarrow \text{hundredths} \end{array} \qquad \begin{array}{r} 1.2 \leftarrow \text{tenths} \\ \times\ 0.3 \leftarrow \text{tenths} \\ \hline 0.36 \leftarrow \text{hundredths} \end{array}$$

	a	b	c	d	e
2.	$0.8 \times 0.4 = 0.32$	$0.7 \times 0.6 = 0.42$	$0.5 \times 0.8 = 0.40$	$0.6 \times 0.4 = 0.24$	$0.6 \times 0.8 = 0.48$
3.	$2.1 \times 0.4 = 0.84$	$2.4 \times 0.2 = 0.48$	$4.9 \times 0.5 = 2.45$	$7.4 \times 0.5 = 3.70$	$5.2 \times 0.3 = 1.56$
4.	$19.6 \times 0.5 = 9.80$	$28.5 \times 0.8 = 22.80$	$64.3 \times 0.8 = 51.44$	$10.9 \times 0.3 = 3.27$	$48.1 \times 0.9 = 43.29$

©1976, SRA

Compute. Watch the operation signs.

	a	b	c	d	e
1.	$8 \times 0.4 = 3.2$	$7.64 + 0.387 = 8.027$	$9.9 \times 6 = 59.4$	$9.3 - 8.9 = 0.4$	$3.3 \times 0.8 = 2.64$
2.	$1.506 - 0.578 = 0.928$	$16 \times 0.8 = 12.8$	$0.184 + 0.934 = 1.118$	$3.7 \times 1.2 = 4.44$	$8.27 + 3.09 = 11.36$

Write each as a decimal.

① $\frac{7}{10} = 0.7$ ② $\frac{23}{100} = 0.23$ ③ $\frac{53}{1000} = 0.053$

④ $\frac{8}{1000} = 0.008$ ⑤ $\frac{9}{100} = 0.09$ ⑥ $\frac{601}{1000} = 0.601$

Arrange these decimals in order from smallest to largest.

⑦ 30.6, 3.06, 306.0, 0.306, 0.603 0.306 0.603 3.06 30.6 306.0

Round each decimal to the nearest tenth.

⑧ 2.348 2.3 ⑨ 3.15 3.2 ⑩ 5.961 6.0

⑪ 43.309 43.3 ⑫ 57.471 57.5

Compute. Watch the operation signs.

⑬ $8.3 - 1.2 = 7.1$ ⑭ $7.4 - 0.9 = 6.5$ ⑮ $9.5 + 0.7 = 10.2$ ⑯ $0.9 - 0.21 = 0.69$ ⑰ $3.179 + 0.793 = 3.972$

⑱ $0.4 \times 0.5 = 0.20$ ⑲ $37.5 \times 2.1 = 78.75$ ⑳ $4.8 \times 3 = 14.4$ ㉑ $2.8 + 0.53 = 3.33$ ㉒ $6.7 \times 0.8 = 5.36$

1. Look at the division example.

Place the decimal point in the quotient where it belongs.

Write the answer. 1.75

```
   175
  -----
     5
    70
   100
4)7.00
   400
  ----
   300
   280
  ----
    20
    20
  ----
     0
```

2. Is the problem correct? Check by multiplying. Yes

3. Divide.

a 0.25
4)1.00

b 2.50
2)5.00

c 3.20
5)16.00

d 3.50
4)14.00

Write two decimals for each number.

Examples: $\frac{5}{10}$ = 0.5 = 0.50

1.1 = 1.10 = 1.100

a **b**

4. $\frac{6}{10}$ = 0.6 = 0.60 $\frac{2}{100}$ = 0.02 = 0.020

5. 2 = 2.0 = 2.00 9 = 9.0 = 9.00

6. 3.6 = 3.60 = 3.600 9.4 = 9.40 = 9.400

7. 0.29 = 0.290 = 0.2900 0.72 = 0.720 = 0.7200

Look at each set of problems. Ring the one that is different.

8. 3)9 | 3)9.0 | 3)90.0

9. 4)8 | 4)0.80 | 4)8.00

10. 2)1.00 | 2)10.0 | 2)10

11. 2)0.6 | 2)0.60 | 2)0.060

12. 11)22.0 | 11)2.20 | 11)22

13. 12)2.40 | 12)24.0 | 12)24.00

©1976, SRA

1. Check the answers.

$$\begin{array}{r} 2.25 \\ \hline 0.05 \\ 0.20 \\ 2.00 \\ \hline 4)\overline{9.00} \\ 8.00 \\ \hline 1.00 \\ 0.80 \\ \hline 0.20 \\ 0.20 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 2.25 \\ \times \quad 4 \\ \hline 9.00 \end{array}$$

$$\begin{array}{r} 2\ \text{R}1 \\ 4\overline{)9} \\ 8 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2 \\ \times 4 \\ \hline 8 \\ +\ 1 \\ \hline 9 \end{array}$$

Divide and check. (Annex a decimal point and zeros to avoid a remainder.)

	a		b		c	
2.	$6\overline{)9.0}$ 1.5	$\begin{array}{r} 1.5 \\ \times 6 \\ \hline 9.0 \end{array}$	$5\overline{)12.0}$ 2.4	$\begin{array}{r} 2.4 \\ \times 5 \\ \hline 12.0 \end{array}$	$5\overline{)6.0}$ 1.2	$\begin{array}{r} 1.2 \\ \times 5 \\ \hline 6.0 \end{array}$
3.	$5\overline{)7.0}$ 1.4	$\begin{array}{r} 1.4 \\ \times 5 \\ \hline 7.0 \end{array}$	$2\overline{)7.0}$ 3.5	$\begin{array}{r} 3.5 \\ \times 2 \\ \hline 7.0 \end{array}$	$4\overline{)26.0}$ 6.5	$\begin{array}{r} 6.5 \\ \times 4 \\ \hline 26.0 \end{array}$
4.	$4\overline{)7.00}$ 1.75	$\begin{array}{r} 1.75 \\ \times 4 \\ \hline 7.00 \end{array}$	$4\overline{)1.00}$ 0.25	$\begin{array}{r} 0.25 \\ \times 4 \\ \hline 1.00 \end{array}$	$8\overline{)31.000}$ 3.875	$\begin{array}{r} 3.875 \\ \times 8 \\ \hline 31.000 \end{array}$

Complete the division problems. The problems in each row should all have the same quotient. The first row is an example.

	a	b	c	d
	3	3	3	3
	300)900	30)90	3)9	0.3)0.9
1.	100)800	10)80	1)8	0.1)0.8
2.	200)600	20)60	2)6	0.2)0.6
3.	400)1200	40)120	4)12	0.4)1.2

Answer by writing *yes* or *no*.

	a	b
4.	Does 0.3)0.6 equal 3)6 ? yes	Does 0.2)0.4 equal 2)0.4 ? no
5.	Does 0.6)0.18 equal 6)1.8 ? yes	Does 0.7)6.3 equal 7)0.63 ? no
6.	Does 0.3)27 equal 3)2.7 ? no	Does 0.9)45 equal 9)45.0 ? no
7.	Does 0.6)48 equal 6)0.48 ? no	Does 0.1)0.008 equal 1)0.08 ? yes

Rename so that you get division by a whole number. Then compute.

Example: $0.6\overset{?}{)}1.2$ $\quad 6\overset{2}{)}12$

	a		b	
8.	$0.4\overset{?}{)}1.6$	$4\overset{4}{)}16$	$0.3\overset{?}{)}0.024$	$3\overset{0.08}{)}0.24$
9.	$0.7\overset{?}{)}21$	$7\overset{30}{)}210$	$0.8\overset{?}{)}5.6$	$8\overset{7}{)}56$
10.	$0.3\overset{?}{)}0.09$	$3\overset{0.3}{)}0.9$	$0.7\overset{?}{)}63$	$7\overset{90}{)}630$
11.	$0.9\overset{?}{)}5.4$	$9\overset{6}{)}54$	$0.7\overset{?}{)}0.14$	$7\overset{0.2}{)}1.4$
12.	$0.5\overset{?}{)}20$	$5\overset{40}{)}200$	$0.9\overset{?}{)}630$	$9\overset{700}{)}6300$

©1976, SRA

Compute the quotients.

	a	b	c	d	e
1.	$0.4\overline{)23.2}$ → 58	$0.05\overline{)2.45}$ → 49	$0.37\overline{)3.33}$ → 9	$0.88\overline{)0.616}$ → 0.7	$0.32\overline{)1.92}$ → 6
2.	$7.7\overline{)5.39}$ → 0.7	$3.4\overline{)102}$ → 30	$0.56\overline{)0.448}$ → 0.8	$0.06\overline{)0.0516}$ → 0.86	$7.4\overline{)5.92}$ → 0.8

Compute.

① $0.7\overline{)5.6}$ → 8	② $0.6\overline{)4.2}$ → 7	③ $0.8\overline{)0.016}$ → 0.02	④ $0.09\overline{)0.882}$ → 9.8
⑤ $0.8\overline{)23.2}$ → 29	⑥ $0.06\overline{)3.24}$ → 54	⑦ $0.7\overline{)51.8}$ → 74	⑧ $0.74\overline{)0.0518}$ → 0.07
⑨ $0.37\overline{)0.222}$ → 0.6	⑩ $0.94\overline{)0.2726}$ → 0.29	⑪ $4.19\overline{)16.76}$ → 4	⑫ $0.04\overline{)0.0064}$ → 0.16

Solve.

1. They took a trip. The car odometer read 23 016.2 km before the trip. If they travelled 374.39 km, what would the odometer read after the trip? 23 390.59 km or 23 390.6 km

2. Over a period of three days, the local weather bureau recorded the following amounts of rainfall: Saturday, 4.5 mm; Sunday, 2.45 mm; Monday, 1.52 mm .

   a What was the total rainfall for three days? 8.5 mm or 8.47 mm

   b How much more rain fell on Saturday than on Sunday? 2 mm or 2.05 mm

   c How much more rain fell on Saturday than on Monday? 3 mm or 2.98 mm

   d What was the total rainfall for Sunday and Monday? 4 mm or 3.97 mm

   e The total rainfall for Sunday and Monday was still less than the amount recorded for Saturday. How much less? 0.5 mm or 0.53 mm

3. He wanted to buy a model car and a model plane. The car cost $2.65. The plane cost $3.49. He had $7.00.

   a How much did the two models cost? $6.14

   b He bought the models. How much change did he get back? $0.86

4. Four boys helped paint a garage one afternoon. They received $17.00 to divide between them for pay. How much did each boy receive? $4.25

©1976, SRA

Write each percent as a decimal.

	a	b	c	d
1.	40% = 0.40	63% = 0.63	21% = 0.21	69% = 0.69
2.	5% = 0.05	2% = 0.02	50% = 0.50	74% = 0.74
3.	7% = 0.07	18% = 0.18	89% = 0.89	100% = 1.00

Convert each percent to a decimal. Then solve.

Example: 10% of 50 = 0.10 × 50 = 5

	a	b
4.	10% of 150 = 0.10 x 150 = 15.00	32% of 200 = 0.32 x 200 = 64.00
5.	15% of 500 = 0.15 x 500 = 75.00	40% of 425 = 0.40 x 425 = 170.00
6.	5% of 140 = 0.05x140 = 7.00	4% of 50 = 0.04x50 = 2.00

Solve.

There are 100 students in Ada's class at Green Briar School. 46% are girls.

7. How many girls are in Ada's class? 46

8. How many boys are in Ada's class? 54

675 students attend Green Briar School. 44% of the students are boys.

9. How many girls attend the school? 378

10. On Monday 4% of the students were absent. How many students were at school? 648

1. Add.

a $0.3 + 0.6 = 0.9$ **b** $0.52 + 0.49 = 1.01$ **c** $0.8 + 0.93 = 1.73$ **d** $9.3 + 0.7 = 10.0$ **e** $5.9 + 1.1 = 7.0$

2. Subtract.

a $0.48 - 0.35 = 0.13$ **b** $0.64 - 0.05 = 0.59$ **c** $0.3 - 0.18 = 0.12$ **d** $1.52 - 0.75 = 0.77$ **e** $8 - 0.46 = 7.54$

3. Multiply.

a $0.3 \times 0.7 = 0.21$ **b** $0.8 \times 0.6 = 0.48$ **c** $0.07 \times 0.9 = 0.063$ **d** $0.04 \times 6 = 0.24$ **e** $0.58 \times 8 = 4.64$

f $1.9 \times 5 = 9.5$ **g** $1.2 \times 8 = 9.6$ **h** $0.71 \times 0.3 = 0.213$ **i** $0.38 \times 0.1 = 0.038$ **j** $0.09 \times 0.6 = 0.054$

4. Complete.

a $1 \times 5 =$ 5 **b** $1 \times 0.5 =$ 0.5 **c** $1 \times 0.05 =$ 0.05 **d** $1 \times 0.005 =$ 0.005

e $0.1 \times 0.5 =$ 0.05 **f** $0.1 \times 0.05 =$ 0.005 **g** $0.1 \times 0.005 =$ 0.0005

5. Divide. (Annex zeros if necessary to avoid a remainder.)

a $5\overline{)7.0} = 1.4$ **b** $4\overline{)5.00} = 1.25$ **c** $0.7\overline{)3.64} = 5.2$ **d** $0.19\overline{)0.95} = 5$ **e** $0.7\overline{)455} = 650$

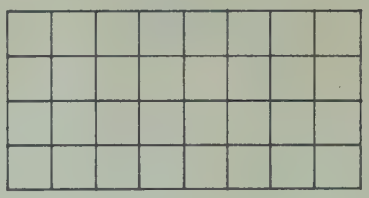
©1976, SRA

Remember: The amount of surface inside a region is called the *area.*
The distance around a region is called the *perimeter.*

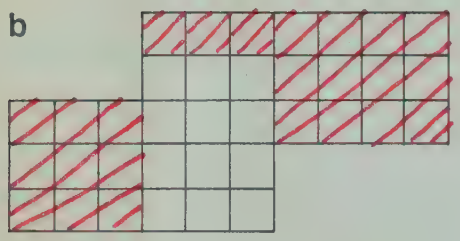
1. How many squares are there in **a**? 32

2. What is the distance around **a**? 24

a



b



3. What is the area of **b**? 36

4. What is the perimeter of **b**? 30

5. Shade **b** so that the unshaded region has an area of 12. Shaded area may vary.

6. What is the area of shaded **b**? 24

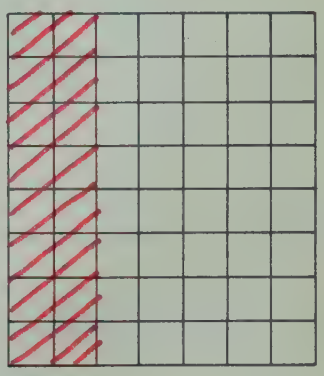
7. What is the area of **c**? 56

8. What is the perimeter of **c**? 30

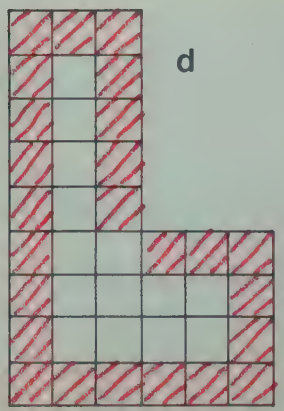
9. Shade **c** so that it has an area of 40 unshaded squares. Shaded area may vary.

10. What is the perimeter of the unshaded region? 26

c



d



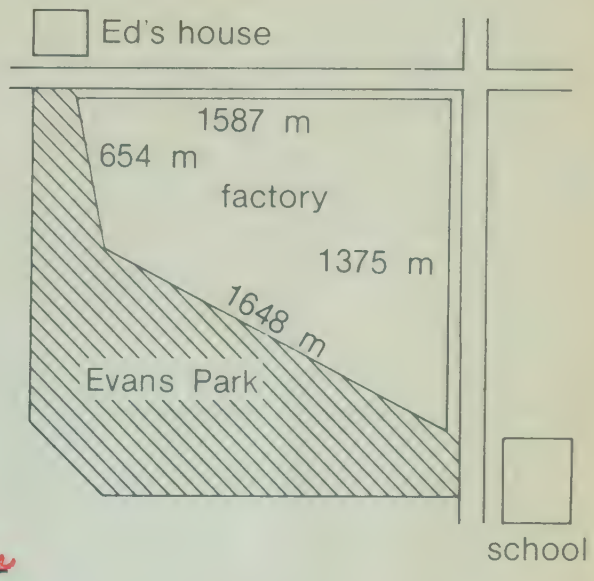
11. What is the area of **d**? 39

12. What is the perimeter of **d**? 30

13. Shade the squares touching the outside boundary of region **d**. What is the unshaded area of **d**? 14

14. What is the perimeter of the unshaded area? 22

Ed rides his bicycle to school. He can ride along the sidewalk or he can cut through Evans Park.

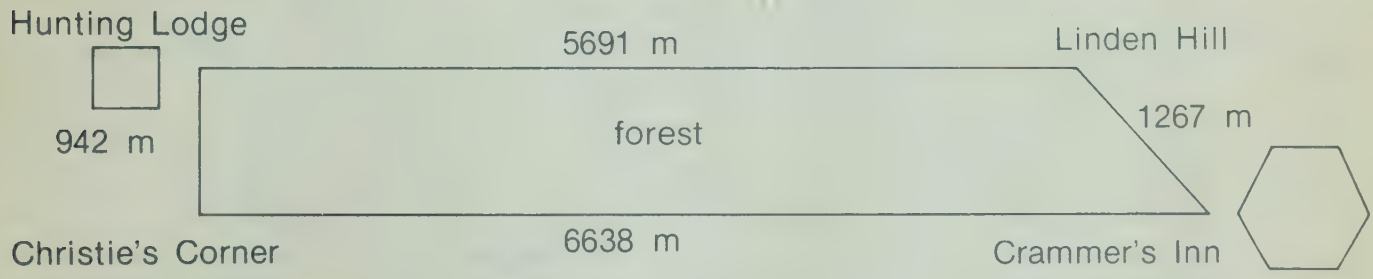


1. Ed takes the sidewalk.
   How far does he ride? 2962 m

2. Ed cuts through Evans Park.
   How far does he ride? 2302 m

3. Which is the shorter route? Through the park.

4. What is the perimeter of the factory? 5264 m



5. Start at the Hunting Lodge. Go to Linden Hill. Then go to Crammer's Inn.
   How far did you travel? 6958 m

6. From Crammer's Inn go to Christie's Corner. Then go to the Hunting Lodge.
   How far did you travel? 7580 m

7. What is the distance around the forest? 14 538 m

Try these.

8.

a	b	c	d	e
837	319	6708	419	134
+439	+732	+1543	+248	+538
1276	1051	8251	1423	1451

©1976, SRA

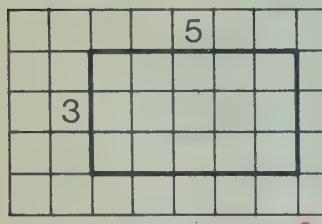
1. Find the perimeter and area for each figure.

a perimeter = 18
area = 8

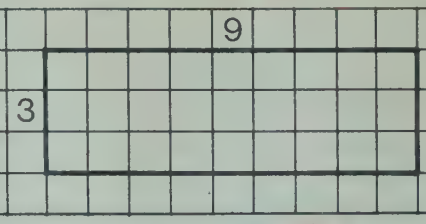
b perimeter = 12
area = 9

c perimeter = 18
area = 18

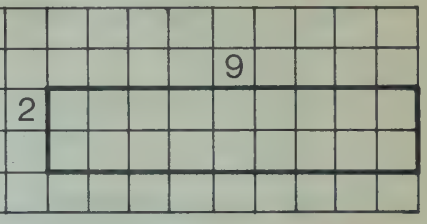
d perimeter = 16
area = 15



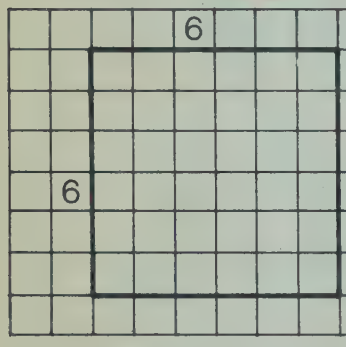
e perimeter = 24
area = 27



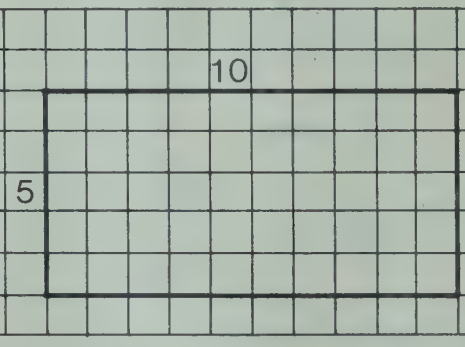
f perimeter = 22
area = 18



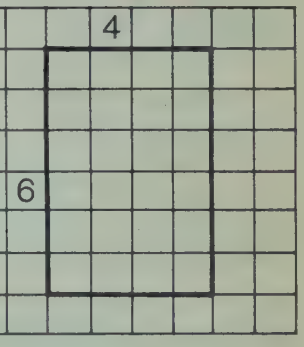
g perimeter = 24
area = 36



h perimeter = 30
area = 50



i perimeter = 20
area = 24

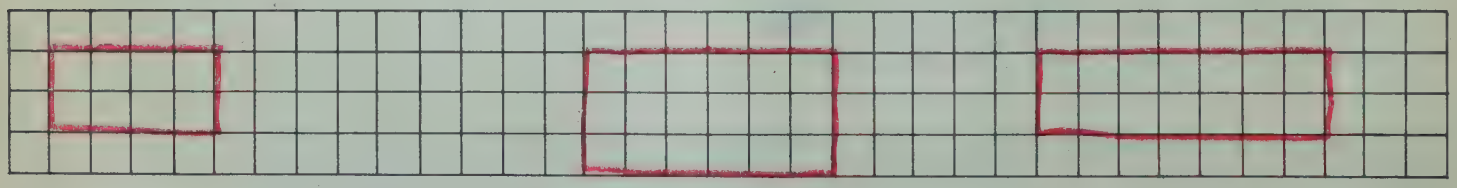


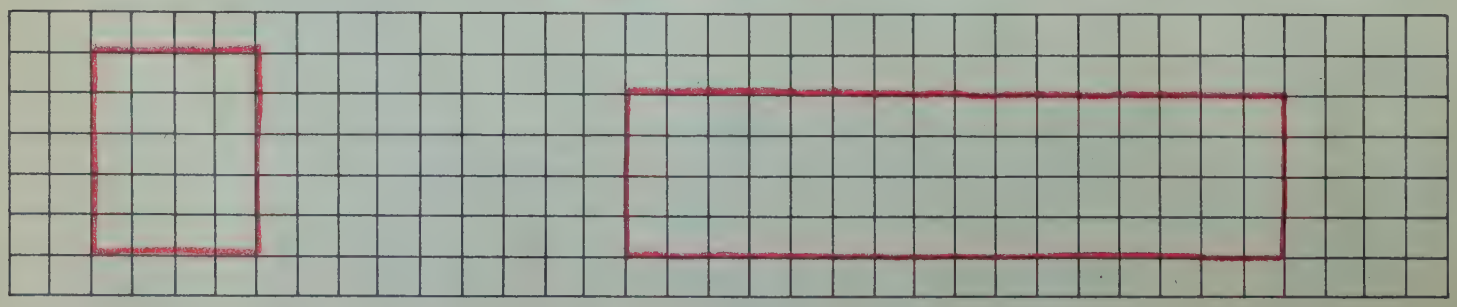
2. Draw a region for each perimeter and area.

a perimeter = 12
area = 8

b perimeter = 18
area = 18

c perimeter = 18
area = 14





d perimeter = 18
area = 20

e perimeter = 40
area = 64

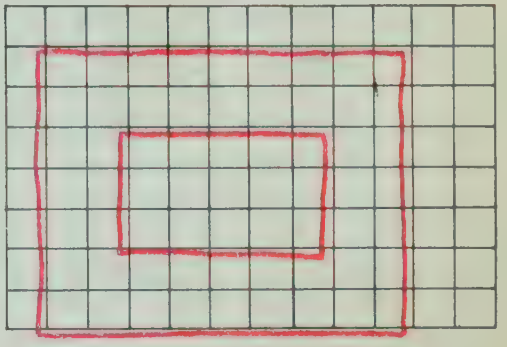
Need to practise multiplication? Try these.

	a	b	c	d	e
1.	79 × 9 = 711	93 × 6 = 558	86 × 44 = 3784	87 × 26 = 2262	99 × 83 = 8217

Try some more.

	a	b	c	d
2.	743 × 362 = 268 966	761 × 478 = 363 758	625 × 194 = 121 250	917 × 264 = 242 088

Sue wanted to plant a vegetable garden 3 m wide and 5 m long. Her dad said the garden could be placed in an area 7 m wide and 9 m long. Her dad planted grass around Sue's garden. He also put a fence around the lot.



3. Draw the lot. Make the side of one square equal to 1 m .

4. Draw the vegetable garden in the lot.

5. How much fence will be needed for the lot? 32 m

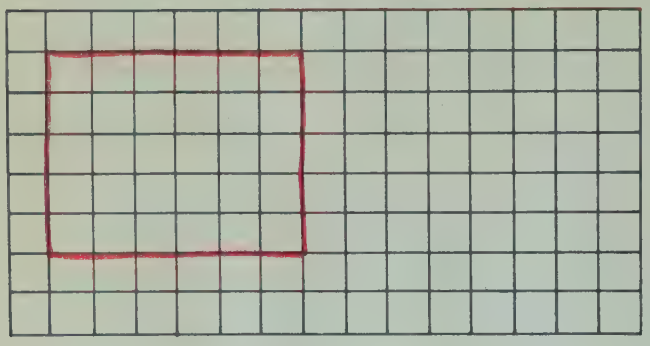
6. What is the area of the lot? 63 m^2

7. What is the area of the vegetable garden? 15 m^2

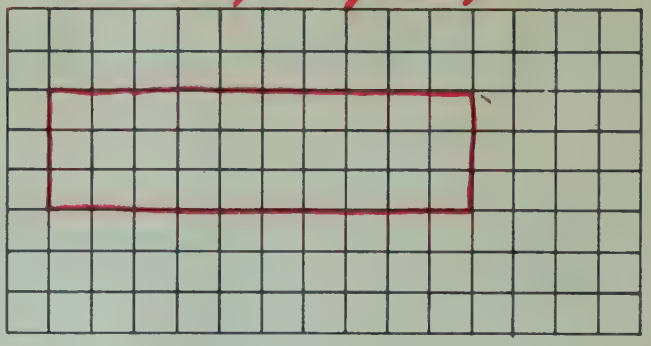
8. How many square metres of the lot did Sue's dad need to cover with grass seed? 48 m^2

©1976, SRA

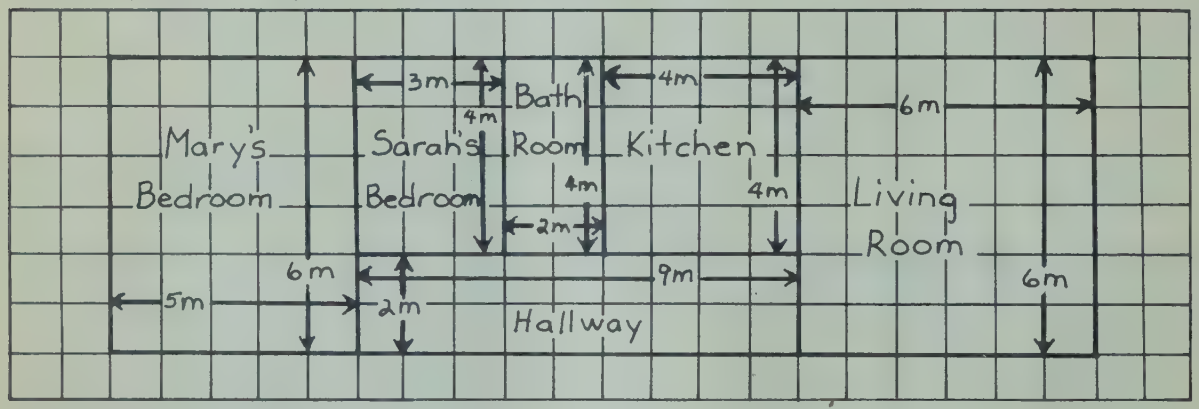
1. Mrs. Nelson bought 150 ha of land. Make a drawing of what shape the land might be. Let each square equal 5 ha . Drawing may vary.



2. Mr. Benson bought 150 ha of land. His land was not shaped like Mrs. Nelson's land. Make a drawing of what shape his land might be.
Drawing may vary.



3. Sarah wants to buy carpeting for her apartment. She has to figure out how many square metres of floor space there are in each room. She draws this floor plan. Each square is equal to 1 m^2 .



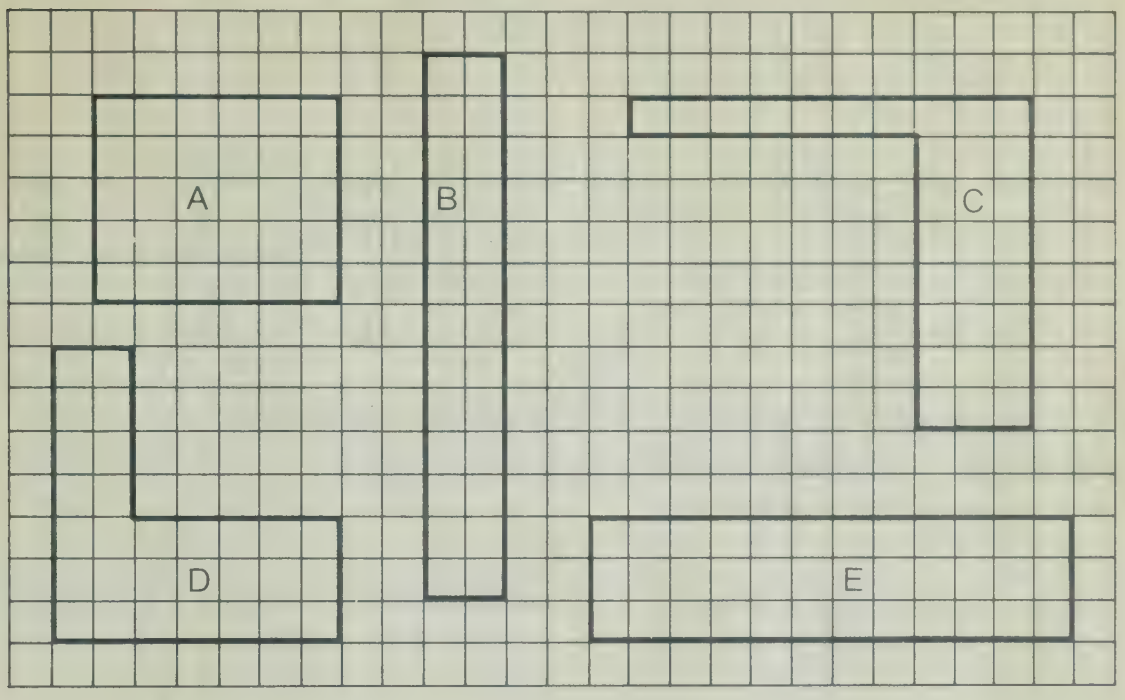
Help Sarah complete this table.

Room	Floor space
Living room	36 m^2
Kitchen	16 m^2
Bathroom	8 m^2
Sarah's bedroom	12 m^2
Mary's bedroom	30 m^2
Hallway	18 m^2

What is the total amount of floor space in Sarah's apartment? 120 m^2

1. Which regions have a perimeter of 30 units or more?

B C E _____ _____



2. Which regions in problem 1 have an area of 30 square units or more?

A C E _____ _____

Add.

	a	b	c	d	e
3.	74 + 38 112	946 + 27 973	441 + 188 629	576 + 165 741	294 + 219 513

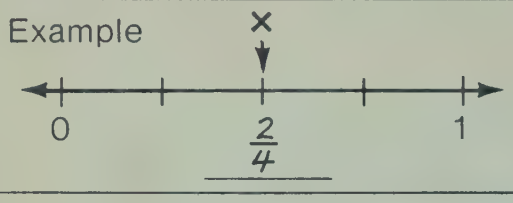
Multiply.

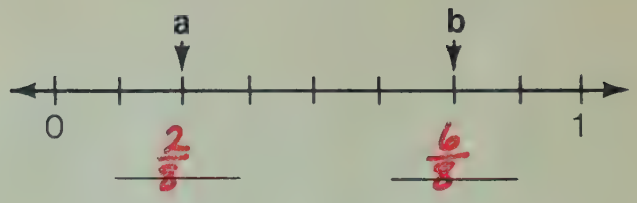
4.	64 × 8 512	94 × 30 2820	39 × 28 1092	478 × 219 104 682	384 × 265 101 760

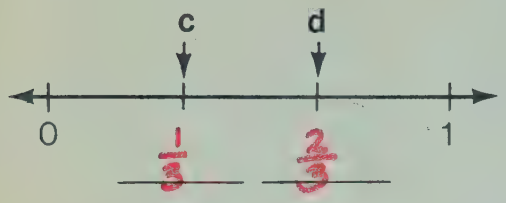
©1976, SRA

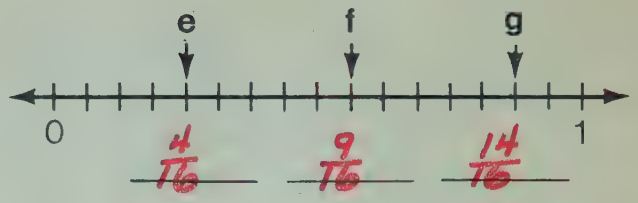
1. Complete each number line.

Example



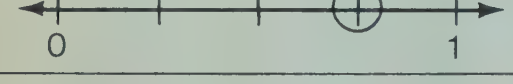






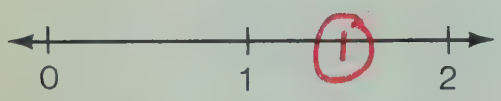
2. Mark the points needed on each number line to show the fraction.
Ring the point that represents the fraction.

Example $\frac{3}{4}$



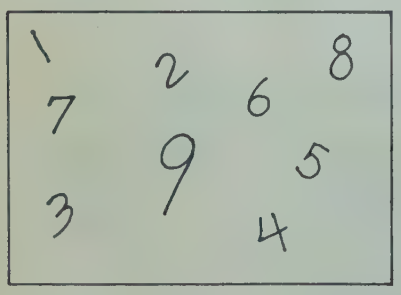
a $\frac{4}{6}$

b $1\frac{1}{2}$



c $1\frac{2}{3}$

3. Write a fraction to answer each question.



a Odd numbers are what part of the set? 5/9

b Even numbers are what part of the set? 4/9

c Numbers greater than 5 are what part of the set? 4/9

d Numbers less than 5 are what part of the set? 4/9

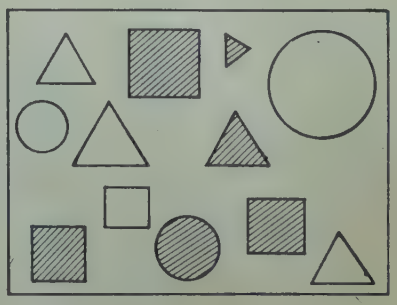
e Circles are what part of the set? 3/12 or 1/4

f Triangles are what part of the set? 5/12

g What part of the set is shaded? 6/12 or 1/2

h Squares are what part of the set? 4/12 or 1/3

i Write a fraction that represents the whole set. 12/12



1. A whole number greater than 1 whose only factors are itself and 1 is called a prime number.

Ring the prime number in each pair.

	a	b	c	d	e
2.	1 or 3?	7 or 6?	9 or 2?	5 or 10?	20 or 11?
3.	13 or 15?	17 or 4?	33 or 11?	18 or 19?	22 or 23?

4. Complete the list of prime numbers between 1 and 25.

a	b	c	d	e
2, 3,	5,	7, 11,	13, 17,	19, 23

Express each number as a product of prime numbers. Example: 4 = 2 X 2

	a	b	c	d
5.	6 = 2×3	8 = 2×2×2	9 = 3×3	10 = 2×5
6.	12 = 2×2×3	14 = 2×7	15 = 3×5	16 = 2×2×2×2
7.	18 = 2×3×3	20 = 2×2×5	21 = 3×7	22 = 2×11

Complete the factoring problems. Then express the number as a product of prime numbers.

	a	b	c	d
8.	5 | 25 5 | 5 1	2 | 18 3 | 9 3 | 3 1	2 | 36 2 | 18 3 | 9 3 | 3 1	2 | 42 3 | 21 7 | 7 1
	25 = 5×5	18 = 2×3×3	36 = 2×2×3×3	42 = 2×3×7
9.	7 | 49 7 | 7 1	2 | 88 2 | 44 2 | 22 11 | 11 1	2 | 32 2 | 16 2 | 8 2 | 4 2 | 2 1	2 | 78 3 | 39 13 | 13 1
	49 = 7×7	88 = 2×2×2×11	32 = 2×2×2×2×2	78 = 2×3×13

©1976, SRA

1. Write all the possible factors for each number.
Then write the greatest common factor for each pair.

Numbers	Factors	Greatest common factor
4	1, 2, 4	
16	1, 2, 4, 8, 16	4
5	1, 5	
15	1, 3, 5, 15	5
8	1, 2, 4, 8	
14	1, 2, 7, 14	2
6	1, 2, 3, 6	
18	1, 2, 3, 6, 9, 18	6

Use the greatest common factor to find the simplest fraction.
(If you need help, use the table in problem 1.)

	a	b
2.	$\frac{4}{16} = \frac{4 \div 4}{16 \div 4} = \frac{1}{4}$	$\frac{5}{15} = \frac{5 \div 5}{15 \div 5} = \frac{1}{3}$
3.	$\frac{8}{14} = \frac{8 \div 2}{14 \div 2} = \frac{4}{7}$	$\frac{6}{18} = \frac{6 \div 6}{18 \div 6} = \frac{1}{3}$

Use the greatest common factor to find the simplest fraction.

	a	b	c	d	e
4.	$\frac{12}{36} = \frac{1}{3}$	$\frac{4}{20} = \frac{1}{5}$	$\frac{3}{9} = \frac{1}{3}$	$\frac{6}{8} = \frac{3}{4}$	$\frac{7}{21} = \frac{1}{3}$
5.	$\frac{4}{40} = \frac{1}{10}$	$\frac{18}{30} = \frac{3}{5}$	$\frac{16}{20} = \frac{4}{5}$	$\frac{9}{18} = \frac{1}{2}$	$\frac{14}{21} = \frac{2}{3}$
6.	$\frac{8}{16} = \frac{1}{2}$	$\frac{9}{27} = \frac{1}{3}$	$\frac{4}{6} = \frac{2}{3}$	$\frac{8}{18} = \frac{4}{9}$	$\frac{11}{22} = \frac{1}{2}$
7.	$\frac{9}{15} = \frac{3}{5}$	$\frac{10}{25} = \frac{2}{5}$	$\frac{8}{12} = \frac{2}{3}$	$\frac{4}{10} = \frac{2}{5}$	$\frac{6}{14} = \frac{3}{7}$

Complete by writing an equivalent fraction.

	a	b	c	d	e
1.	$\frac{1}{3} = \frac{3}{9}$	$\frac{5}{6} = \frac{15}{18}$	$\frac{1}{9} = \frac{5}{45}$	$\frac{2}{3} = \frac{8}{12}$	$\frac{1}{2} = \frac{12}{24}$
2.	$\frac{5}{10} = \frac{10}{20}$	$\frac{2}{5} = \frac{8}{20}$	$\frac{1}{8} = \frac{3}{24}$	$\frac{1}{3} = \frac{6}{18}$	$\frac{4}{5} = \frac{12}{15}$
3.	$\frac{3}{8} = \frac{12}{32}$	$\frac{7}{9} = \frac{14}{18}$	$\frac{1}{7} = \frac{6}{42}$	$\frac{5}{6} = \frac{30}{36}$	$\frac{3}{4} = \frac{18}{24}$
4.	$\frac{3}{5} = \frac{18}{30}$	$\frac{2}{3} = \frac{6}{9}$	$\frac{2}{5} = \frac{4}{10}$	$\frac{1}{3} = \frac{9}{27}$	$\frac{8}{9} = \frac{16}{18}$

Rename. Then compute.

	a	b	c
5.	$\frac{1}{4} + \frac{1}{2} = \frac{?}{}$ $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$	$\frac{3}{8} + \frac{1}{4} = \frac{?}{}$ $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$	$\frac{1}{2} + \frac{2}{6} = \frac{?}{}$ $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$
6.	$\frac{2}{5} + \frac{3}{10} = \frac{?}{}$ $\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$	$\frac{3}{6} + \frac{1}{3} = \frac{?}{}$ $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$	$\frac{1}{4} + \frac{1}{8} = \frac{?}{}$ $\frac{2}{8} + \frac{1}{8} = \frac{3}{8}$
7.	$\frac{5}{6} - \frac{2}{3} = \frac{?}{}$ $\frac{5}{6} - \frac{4}{6} = \frac{1}{6}$	$\frac{3}{6} - \frac{1}{12} = \frac{?}{}$ $\frac{6}{12} - \frac{1}{12} = \frac{5}{12}$	$\frac{7}{9} - \frac{1}{3} = \frac{?}{}$ $\frac{7}{9} - \frac{3}{9} = \frac{4}{9}$
8.	$\frac{6}{8} - \frac{1}{4} = \frac{?}{}$ $\frac{6}{8} - \frac{2}{8} = \frac{4}{8} = \frac{1}{2}$	$\frac{3}{5} - \frac{1}{10} = \frac{?}{}$ $\frac{6}{10} - \frac{1}{10} = \frac{5}{10} = \frac{1}{2}$	$\frac{6}{4} - \frac{2}{2} = \frac{?}{}$ $\frac{6}{4} - \frac{4}{4} = \frac{2}{4} = \frac{1}{2}$
9.	$\frac{1}{7} + \frac{2}{5} = \frac{?}{}$ $\frac{5}{35} + \frac{14}{35} = \frac{19}{35}$	$\frac{4}{5} - \frac{1}{3} = \frac{?}{}$ $\frac{12}{15} - \frac{5}{15} = \frac{7}{15}$	$\frac{2}{6} + \frac{1}{4} = \frac{?}{}$ $\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$
10.	$\frac{5}{6} - \frac{1}{4} = \frac{?}{}$ $\frac{10}{12} - \frac{3}{12} = \frac{7}{12}$	$\frac{2}{3} - \frac{1}{8} = \frac{?}{}$ $\frac{16}{24} - \frac{3}{24} = \frac{13}{24}$	$\frac{3}{8} + \frac{2}{6} = \frac{?}{}$ $\frac{9}{24} + \frac{8}{24} = \frac{17}{24}$

©1976, SRA

Write the simplest name for each fraction.

	a	b	c	d	e
1.	$\frac{6}{8} = \frac{3}{4}$	$\frac{3}{9} = \frac{1}{3}$	$\frac{9}{12} = \frac{3}{4}$	$\frac{10}{12} = \frac{5}{6}$	$\frac{8}{16} = \frac{1}{2}$
2.	$\frac{6}{9} = \frac{2}{3}$	$\frac{21}{24} = \frac{7}{8}$	$\frac{3}{36} = \frac{1}{12}$	$\frac{15}{24} = \frac{5}{8}$	$\frac{18}{27} = \frac{2}{3}$
3	$\frac{9}{18} = \frac{1}{2}$	$\frac{8}{24} = \frac{1}{3}$	$\frac{7}{21} = \frac{1}{3}$	$\frac{10}{16} = \frac{5}{8}$	$\frac{20}{24} = \frac{5}{6}$
4.	$\frac{9}{24} = \frac{3}{8}$	$\frac{2}{14} = \frac{1}{7}$	$\frac{9}{15} = \frac{3}{5}$	$\frac{8}{12} = \frac{2}{3}$	$\frac{18}{32} = \frac{9}{16}$

Complete.

	a	b	c	d	e
5.	$\frac{1}{2} = \frac{8}{16}$	$\frac{3}{4} = \frac{6}{8}$	$\frac{1}{4} = \frac{6}{24}$	$\frac{5}{6} = \frac{15}{18}$	$\frac{5}{12} = \frac{15}{36}$
6.	$\frac{3}{8} = \frac{12}{32}$	$\frac{1}{6} = \frac{2}{12}$	$\frac{5}{9} = \frac{20}{36}$	$\frac{2}{3} = \frac{6}{9}$	$\frac{4}{9} = \frac{8}{18}$
7.	$\frac{7}{8} = \frac{21}{24}$	$\frac{3}{10} = \frac{30}{100}$	$\frac{3}{4} = \frac{12}{16}$	$\frac{7}{8} = \frac{21}{24}$	$\frac{3}{5} = \frac{9}{15}$

Compute. Write the simplest name for the answer.

① $\frac{3}{6} - \frac{1}{6} = \frac{1}{3}$

② $\frac{3}{8} + \frac{3}{8} = \frac{3}{4}$

③ $\frac{5}{8} - \frac{3}{8} = \frac{1}{4}$

④ $\frac{10}{15} - \frac{7}{15} = \frac{1}{5}$

⑤ $\frac{4}{7} + \frac{3}{7} = 1$

⑥ $\frac{8}{9} - \frac{5}{9} = \frac{1}{3}$

Rename before you compute. Write the simplest name for the answer.

⑦ $\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$

⑧ $\frac{3}{8} + \frac{1}{6} = \frac{13}{24}$

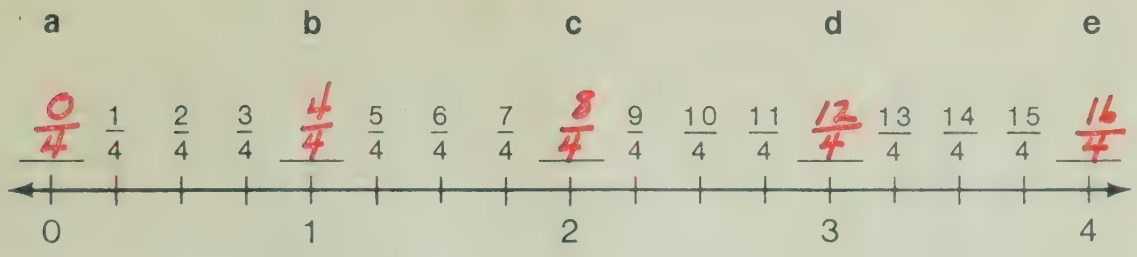
⑨ $\frac{3}{4} - \frac{7}{12} = \frac{1}{6}$

⑩ $\frac{13}{15} - \frac{1}{3} = \frac{8}{15}$

⑪ $\frac{3}{4} + \frac{1}{5} = \frac{19}{20}$

⑫ $\frac{2}{3} + \frac{1}{8} = \frac{19}{24}$

1. Write the missing fractions. Complete the number line.



Complete.

	a	b	c	d	e
2.	$\frac{4}{4} = 1$	$\frac{8}{4} = 2$	$\frac{12}{4} = 3$	$\frac{8}{2} = 4$	$\frac{20}{4} = 5$
3.	$\frac{2}{2} = 1$	$\frac{3}{3} = 1$	$\frac{5}{5} = 1$	$\frac{6}{6} = 1$	$\frac{8}{8} = 1$
4.	$\frac{15}{5} = 3$	$\frac{12}{6} = 2$	$\frac{16}{8} = 2$	$\frac{9}{3} = 3$	$\frac{4}{2} = 2$

Rename as a fraction.

	a	b	c	d	e
5.	$4\frac{1}{2} = \frac{9}{2}$	$1\frac{4}{9} = \frac{13}{9}$	$2\frac{1}{8} = \frac{17}{8}$	$3\frac{3}{4} = \frac{15}{4}$	$4\frac{2}{3} = \frac{14}{3}$
6.	$1\frac{1}{5} = \frac{6}{5}$	$2\frac{5}{6} = \frac{17}{6}$	$1\frac{2}{3} = \frac{5}{3}$	$1\frac{5}{7} = \frac{12}{7}$	$2\frac{3}{5} = \frac{13}{5}$
7.	$3\frac{1}{5} = \frac{16}{5}$	$4\frac{1}{2} = \frac{9}{2}$	$2\frac{5}{12} = \frac{29}{12}$	$2\frac{1}{6} = \frac{13}{6}$	$1\frac{7}{8} = \frac{15}{8}$
8.	$2\frac{1}{5} = \frac{11}{5}$	$3\frac{2}{3} = \frac{11}{3}$	$5\frac{1}{2} = \frac{11}{2}$	$2\frac{3}{16} = \frac{35}{16}$	$1\frac{30}{32} = \frac{62}{32}$

Rename as a whole number or a mixed number.

	a	b	c	d
9.	$\frac{5}{2} = 2\frac{1}{2}$	$\frac{10}{3} = 3\frac{1}{3}$	$\frac{13}{4} = 3\frac{1}{4}$	$\frac{9}{8} = 1\frac{1}{8}$
10.	$\frac{3}{2} = 1\frac{1}{2}$	$\frac{7}{3} = 2\frac{1}{3}$	$\frac{14}{5} = 2\frac{4}{5}$	$\frac{24}{8} = 3$
11.	$\frac{6}{2} = 3$	$\frac{19}{6} = 3\frac{1}{6}$	$\frac{21}{8} = 2\frac{5}{8}$	$\frac{8}{8} = 1$
12.	$\frac{14}{4} = 3\frac{2}{4}$ or $3\frac{1}{2}$	$\frac{20}{9} = 2\frac{2}{9}$	$\frac{19}{4} = 4\frac{3}{4}$	$\frac{27}{9} = 3$

©1976, SRA

Multiply. Be sure to write each product in simplest form.

	a	b
1.	$\frac{2}{5} \times 4 = \frac{2 \times 4}{5} =$ $1\frac{3}{5}$	$\frac{3}{4} \times 6 = \frac{3 \times 6}{4} =$ $4\frac{1}{2}$
2.	$\frac{1}{2} \times 5 = \frac{1 \times 5}{2} =$ $2\frac{1}{2}$	$\frac{3}{8} \times 3 = \frac{3 \times 3}{8} =$ $1\frac{1}{8}$
3.	$\frac{4}{5} \times 6 = \frac{4 \times 6}{5} =$ $4\frac{4}{5}$	$\frac{2}{3} \times 3 = \frac{2 \times 3}{3} =$ 2
4.	$\frac{7}{10} \times 3 = \frac{7 \times 3}{10} =$ $2\frac{1}{10}$	$\frac{5}{8} \times 7 = \frac{5 \times 7}{8} =$ $4\frac{3}{8}$

Multiply. Write each product in simplest form.

	a	b	c
5.	$\frac{3}{8} \times 4 =$ $1\frac{1}{2}$	$\frac{2}{5} \times 3 =$ $1\frac{1}{5}$	$\frac{1}{6} \times 6 =$ 1
6.	$\frac{7}{8} \times 6 =$ $5\frac{1}{4}$	$\frac{2}{3} \times 4 =$ $2\frac{2}{3}$	$\frac{5}{7} \times 4 =$ $2\frac{6}{7}$
7.	$\frac{4}{5} \times 10 =$ 8	$\frac{5}{6} \times 4 =$ $3\frac{1}{3}$	$\frac{8}{9} \times 3 =$ $2\frac{2}{3}$
8.	$\frac{3}{5} \times 6 =$ $3\frac{3}{5}$	$\frac{5}{8} \times 6 =$ $3\frac{3}{4}$	$\frac{7}{8} \times 8 =$ 7

Solve. Write each answer in simplest form.

9. Sue works $\frac{3}{4}$ h each day for her father.

   a How many hours does she work in 3 days? $2\frac{1}{4}$ h

   b How many hours does she work in 6 days? $4\frac{1}{2}$ h

10. Fran painted for 12 days. She used $\frac{1}{2}$ can of paint each day. How many cans did she use? 6 cans

11. Jerry had $5. He put $\frac{4}{5}$ of it in the bank. How much did he put in the bank? $4.00

12. Alice drinks $\frac{1}{3}$ can of grapefruit juice daily. How much does she drink in a week? $2\frac{1}{3}$ cans

Multiply. Write each product in simplest form.

	a	b
1.	$\frac{3}{4} \times \frac{2}{3} = \frac{3 \times 2}{4 \times 3} = \frac{1}{2}$	$\frac{2}{5} \times \frac{2}{3} = \frac{2 \times 2}{5 \times 3} = \frac{4}{15}$
2.	$\frac{3}{8} \times \frac{1}{3} = \frac{3 \times 1}{8 \times 3} = \frac{1}{8}$	$\frac{9}{10} \times \frac{1}{3} = \frac{9 \times 1}{10 \times 3} = \frac{3}{10}$
3.	$\frac{3}{8} \times \frac{5}{6} = \frac{3 \times 5}{8 \times 6} = \frac{5}{16}$	$\frac{4}{5} \times \frac{7}{8} = \frac{4 \times 7}{5 \times 8} = \frac{7}{10}$

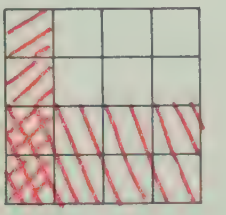
Multiply. Write each product in simplest form.

	a	b	c
4.	$\frac{3}{5} \times \frac{1}{2} = \frac{3}{10}$	$\frac{2}{5} \times \frac{1}{4} = \frac{1}{10}$	$\frac{3}{5} \times \frac{2}{3} = \frac{2}{5}$
5.	$\frac{9}{10} \times \frac{4}{5} = \frac{18}{25}$	$\frac{3}{4} \times \frac{5}{8} = \frac{15}{32}$	$\frac{1}{6} \times \frac{3}{4} = \frac{1}{8}$
6.	$\frac{4}{5} \times \frac{2}{5} = \frac{8}{25}$	$\frac{1}{4} \times \frac{2}{3} = \frac{1}{6}$	$\frac{3}{4} \times \frac{2}{5} = \frac{3}{10}$
7.	$\frac{1}{2} \times \frac{7}{8} = \frac{7}{16}$	$\frac{2}{5} \times \frac{5}{8} = \frac{1}{4}$	$\frac{1}{4} \times \frac{1}{6} = \frac{1}{24}$
8.	$\frac{3}{8} \times \frac{1}{3} = \frac{1}{8}$	$\frac{3}{8} \times \frac{2}{3} = \frac{1}{4}$	$\frac{1}{5} \times \frac{1}{6} = \frac{1}{30}$
9.	$\frac{7}{8} \times \frac{3}{4} = \frac{21}{32}$	$\frac{5}{12} \times \frac{4}{5} = \frac{1}{3}$	$\frac{9}{16} \times \frac{4}{5} = \frac{9}{20}$

Shade the region to show the product.
Write the product in simplest form.

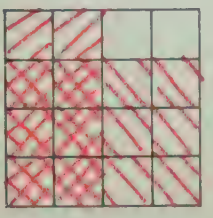
10. Shade part of the region to represent $\frac{1}{2} \times \frac{1}{4}$.

$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$



11. Shade part of the region to represent $\frac{3}{4} \times \frac{1}{2}$.

$\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$



©1976, SRA

Multiply. Write each product in simplest form.

a

1. $\frac{1}{2} \times 2\frac{3}{4} = \frac{1}{2} \times \frac{11}{4} =$ $1\frac{3}{8}$
2. $\frac{3}{4} \times 1\frac{1}{6} = \frac{3}{4} \times \frac{7}{6} =$ $\frac{7}{8}$
3. $\frac{1}{3} \times 7\frac{1}{2} = \frac{1}{3} \times \frac{15}{2} =$ $2\frac{1}{2}$
4. $1\frac{1}{2} \times 2\frac{1}{2} = \frac{3}{2} \times \frac{5}{2} =$ $3\frac{3}{4}$

b

$\frac{1}{2} \times 3\frac{1}{3} = \frac{1}{2} \times \frac{10}{3} =$ $1\frac{2}{3}$

$\frac{2}{5} \times 3\frac{3}{4} = \frac{2}{5} \times \frac{15}{4} =$ $1\frac{1}{2}$

$5\frac{2}{3} \times \frac{1}{3} = \frac{17}{3} \times \frac{1}{3} =$ $1\frac{8}{9}$

$6\frac{2}{3} \times 1\frac{1}{5} = \frac{20}{3} \times \frac{6}{5} =$ 8

Multiply. Write each product in simplest form.

a

5. $\frac{3}{8} \times 2\frac{1}{2} =$ $\frac{15}{16}$
6. $2\frac{4}{5} \times 1\frac{1}{3} =$ $3\frac{11}{15}$
7. $3\frac{1}{5} \times 2\frac{1}{4} =$ $7\frac{1}{5}$
8. $1\frac{2}{3} \times 1\frac{1}{4} =$ $2\frac{1}{12}$
9. $1\frac{7}{9} \times 3\frac{1}{2} =$ $6\frac{2}{9}$
10. $3\frac{2}{3} \times 1\frac{5}{8} =$ $5\frac{23}{24}$
11. $1\frac{4}{5} \times 3\frac{2}{5} =$ $6\frac{3}{25}$
12. $2\frac{1}{2} \times 4\frac{5}{6} =$ $12\frac{1}{12}$
13. $4\frac{4}{5} \times 2\frac{5}{6} =$ $13\frac{3}{5}$

b

$3\frac{2}{3} \times \frac{3}{5} =$ $2\frac{1}{5}$

$3\frac{3}{5} \times 2\frac{2}{3} =$ $9\frac{3}{5}$

$2\frac{1}{2} \times 4\frac{4}{5} =$ 12

$2\frac{2}{3} \times 3\frac{1}{4} =$ $8\frac{2}{3}$

$3\frac{1}{3} \times 2\frac{3}{8} =$ $7\frac{11}{12}$

$1\frac{1}{5} \times 2\frac{2}{9} =$ $2\frac{2}{3}$

$2\frac{2}{5} \times 2\frac{3}{4} =$ $6\frac{3}{5}$

$3\frac{1}{5} \times 2\frac{1}{2} =$ 8

$2\frac{1}{6} \times 1\frac{1}{4} =$ $2\frac{17}{24}$

1. A test was given in class today. There were 12 questions on it. Karen had $\frac{1}{2}$ of the questions correct. How many correct questions did she have? 6

Karen's teacher made up this chart to see how many questions her students had correct. Help her finish it.

Student's name	Karen	Dave	Kim	Sally	Jim	Tim	Pam
Fraction of questions correct	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{5}{6}$	$\frac{3}{4}$	$\frac{7}{12}$	$\frac{2}{3}$	$\frac{5}{6}$
Number of questions correct	6	4	10	9	7	8	10

2. Gail visits her grandparents every school holiday. It takes her $2\frac{1}{2}$ h to travel to their home. Gail travels $\frac{1}{3}$ of this time by bus and the rest by train. How long does Gail travel by bus? How long does she travel by train?

$\frac{5}{6}$ h _____ $1\frac{2}{3}$ h _____

3. June found out that the lifespan of a lion is 20 years. There are 2 lions in the zoo in June's town. One has lived $\frac{3}{4}$ of the expected lifespan, the other has lived $\frac{4}{5}$ of his. How old is each of the lions?

15 years _____ 16 years _____

Multiply. Write the simplest name for each product.

① $6 \times \frac{3}{4} = 4\frac{1}{2}$

② $\frac{7}{8} \times 6 = 5\frac{1}{4}$

③ $\frac{5}{6} \times \frac{1}{4} = \frac{5}{24}$

④ $3\frac{2}{3} \times \frac{3}{4} = 2\frac{3}{4}$

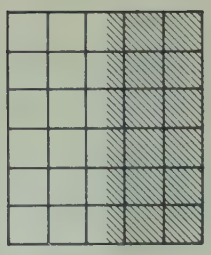
⑤ $4\frac{5}{6} \times 2\frac{1}{2} = 12\frac{1}{12}$

⑥ $2\frac{3}{8} \times 6\frac{2}{5} = 15\frac{1}{3}$

©1976, SRA

1. What is the area of the whole polygon? 30

2. What is the area of the shaded part? 15

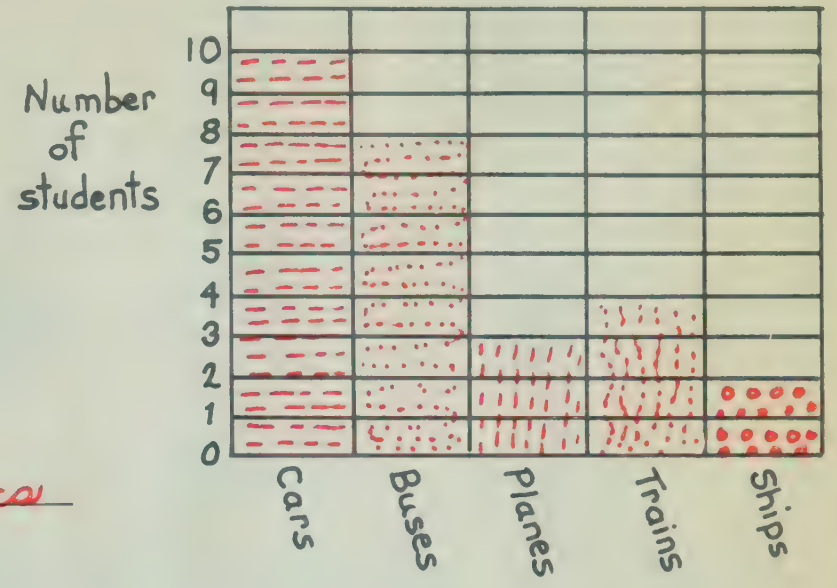


Multiply. Write the simplest name for each product.

	a	b
1.	$4 \times \frac{3}{5} = 2\frac{2}{5}$	$\frac{2}{3} \times 3 = 2$
2.	$\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$	$5\frac{5}{6} \times 2\frac{1}{3} = 13\frac{11}{18}$
3.	$\frac{2}{5} \times \frac{3}{8} = \frac{3}{20}$	$3 \times \frac{7}{8} = 2\frac{5}{8}$
4.	$\frac{5}{8} \times \frac{3}{4} = \frac{15}{32}$	$3\frac{1}{2} \times 2\frac{9}{10} = 10\frac{3}{20}$
5.	$\frac{5}{8} \times 7 = 4\frac{3}{8}$	$\frac{5}{11} \times 8 = 3\frac{7}{11}$
6.	$\frac{2}{3} \times \frac{4}{7} = \frac{8}{21}$	$4\frac{4}{5} \times 2\frac{3}{5} = 12\frac{12}{25}$
7.	$\frac{7}{8} \times \frac{4}{4} = \frac{7}{8}$	$2\frac{3}{5} \times 4 = 10\frac{2}{5}$
8.	$2\frac{2}{5} \times 4\frac{3}{8} = 10\frac{1}{2}$	$\frac{2}{5} \times \frac{1}{3} = \frac{2}{15}$
9.	$4\frac{5}{6} \times \frac{8}{4} = 9\frac{2}{3}$	$2\frac{3}{4} \times 2\frac{3}{4} = 7\frac{9}{16}$
10.	$5\frac{1}{9} \times 3\frac{5}{6} = 19\frac{16}{27}$	$3\frac{2}{7} \times 5 = 16\frac{3}{7}$

1. Several students found out the forms of transportation that other students had used. A tally chart was used to record the results. Use the tally-chart results to complete the bar graph.

Cars	𝍸 𝍸
Buses	𝍸 ///
Planes	///
Trains	////
Ships	//



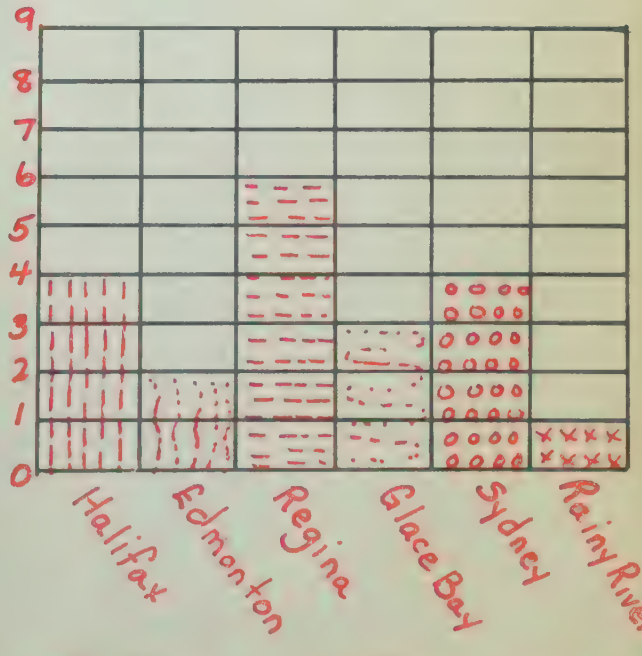
2. How many students were asked this question? 27

3. What form of transportation had the students used the most? Cars

4. What form of transportation had the students used the least? Ships

5. They checked to see what cities these students had visited. Use the tally-chart results to complete the bar graph.

Halifax	////
Edmonton	//
Regina	𝍸 /
Glace Bay	///
Sydney	////
Rainy River	/



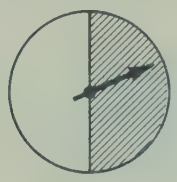
6. What two cities had the same number of student visitors? Halifax Sydney

7. What city had the most student visitors? Regina

8. What city had only one student visitor? Rainy River

©1976, SRA

1. What is the probability of the spinner stopping on the shaded section of each wheel?



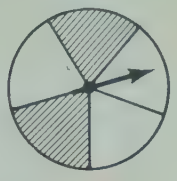
Example $\frac{1}{2}$

a $\frac{1}{4}$

b $\frac{1}{3}$

c $\frac{1}{8}$

d $\frac{3}{3}$ or 1

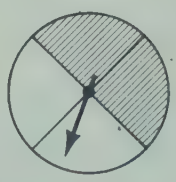
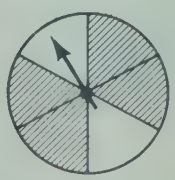
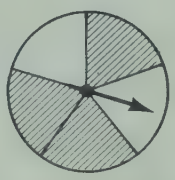


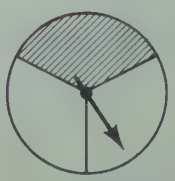
e $\frac{2}{5}$

f $\frac{5}{8}$

g $\frac{2}{4}$ or $\frac{1}{2}$

2. Which spinner is fair? Write *fair* if you and the operator have an equal chance of making money. Tell who is favoured if the spinner is unfair.

	a	b	c	d
Price of bet:	10¢	15¢	5¢	50¢
Winnings for stopping on the shaded part:	20¢	20¢	10¢	75¢
				
	Fair	Unfair – operator favoured	Unfair – player favoured	Unfair – operator favoured

	e	f	g	h
Price of bet:	25¢	10¢	30¢	15¢
Winnings for stopping on the shaded part:	60¢	70¢	$1	90¢
				
	Unfair – operator favoured	Unfair – operator favoured	Unfair player favoured	Fair

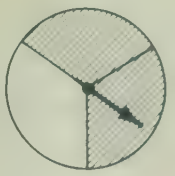
1. You bet that the spinner will stop on the shaded part. Write the probability of that happening. Then write the odds that show your chance to win.

a

probability $\frac{1}{4}$

odds 1 to 3

b



probability $\frac{2}{3}$

odds 2 to 1

c

probability $\frac{2}{4}$ or $\frac{1}{2}$

odds 2 to 2 or 1 to 1

d

probability $\frac{5}{6}$

odds 5 to 1

e

probability $\frac{3}{8}$

odds 3 to 5

f

probability $\frac{2}{9}$

odds 2 to 7

g

probability $\frac{3}{4}$

odds 3 to 1

h

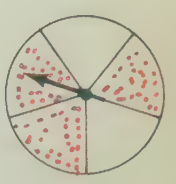
probability 1

odds 1 to 0

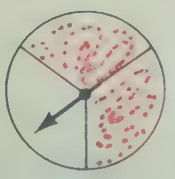
2. Shade each wheel to show what it might look like.

a You bet that the spinner will stop on the shaded part. The odds that you will win are 1 to 5.

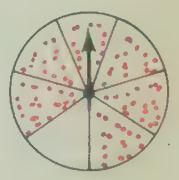
b You bet that the spinner will stop on the white part. The odds that you will win are 2 to 3.



c You bet that the spinner will stop on the white part. The odds that you will win are 1 to 2.



d You bet that the spinner will stop on the shaded part. The odds that you will win are 6 to 1.



e You bet that the spinner will stop on the shaded part. The probability that you will win is 1.

f You bet that the spinner will stop on the shaded part. The probability that you will win is 0.

©1976, SRA

A jar contains five marbles. Two of the marbles are striped. Three are plain. You are blindfolded. You draw one marble from the jar.

1. What is the probability that you will draw marble 4? $\frac{1}{5}$

2. What is the probability that you will draw a striped marble? $\frac{2}{5}$

3. What is the probability that you will draw a plain marble? $\frac{3}{5}$

4. What are the odds that you will draw marble 4? 1 to 4

5. What are the odds that you will draw a striped marble? 2 to 3

6. What are the odds that you will draw a plain marble? 3 to 2

A marble-draw ticket for this game costs $0.50. You will win $0.75 if you draw a striped marble. You will win $1.00 if you draw marble 4.

7. If you try this game 5 times, how much are you likely to win?

striped 2 × $0.75 = $1.50

marble 4 1 × $1.00 = $1.00

other 2 × 0 = 0

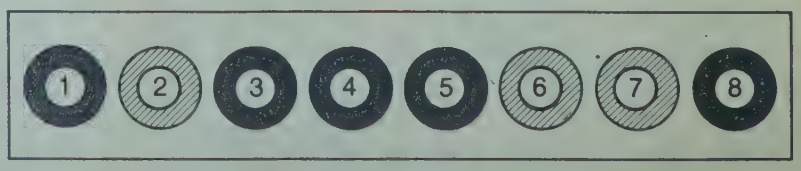
Total winnings $1.50 + $1.00 + 0 = $2.50

8. How much do the tickets cost? 5 × $0.50 = $2.50

9. How much would you win or lose? $2.50 − $2.50 = 0

10. Is this game fair? Yes

This jar contains eight marbles. Three of the marbles are striped. You are blindfolded. You draw one marble from the jar.



11. A ticket for this game costs 25¢. If you draw a striped marble, you will win a dollar. Is this a fair game? No

1. You have a box. In the box are some cards. Two of the cards are always red. Determine the probability for drawing a red card for each situation.

a 3 cards

$$\frac{\text{number of favourable outcomes}}{\text{number of all possibilities}} = \frac{2}{3}$$

b 5 cards

$$\frac{\text{number of favourable outcomes}}{\text{number of all possibilities}} = \frac{2}{5}$$

c 8 cards

$$\frac{\text{number of favourable outcomes}}{\text{number of all possibilities}} = \frac{2 \text{ or } 1}{8 \quad 4}$$

d 10 cards

$$\frac{\text{number of favourable outcomes}}{\text{number of all possibilities}} = \frac{2 \text{ or } 1}{10 \quad 5}$$

e 25 cards

$$\frac{\text{number of favourable outcomes}}{\text{number of all possibilities}} = \frac{2}{25}$$

f 40 cards

$$\frac{\text{number of favourable outcomes}}{\text{number of all possibilities}} = \frac{2 \text{ or } \quad 1}{40 \quad 20}$$

2. You have the same box. Now five of the cards are always red. Determine the probability of drawing a red card for each situation.

a 5 cards $\frac{5}{5}$ or 1

b 8 cards $\frac{5}{8}$

c 10 cards $\frac{5}{10}$ or $\frac{1}{2}$

d 12 cards $\frac{5}{12}$

e 15 cards $\frac{5}{15}$ or $\frac{1}{3}$

f 21 cards $\frac{5}{21}$

Determine the probability for each situation.

3. You flip a coin. It lands with tails up. $\frac{1}{2}$

4. You toss a die. You roll a one. $\frac{1}{6}$

5. You and two others run for class president. You get elected. $\frac{1}{3}$

6. You and four others apply for a job. You are hired. $\frac{1}{5}$

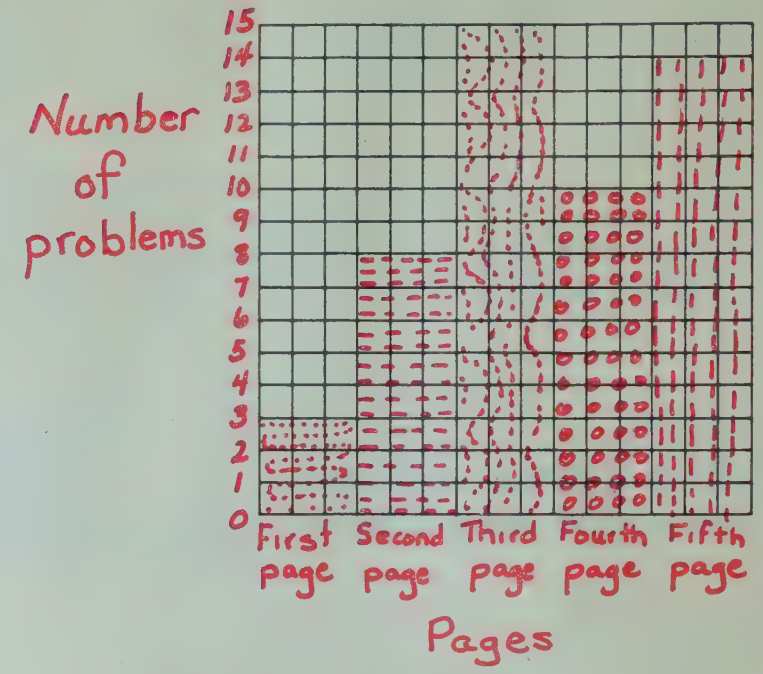
©1976, SRA

Joe did an experiment. He counted the number of math problems on five pages in his math book.

Joe's tally chart

First page	///
Second page	𝍸 ///
Third page	𝍸 𝍸 𝍸
Fourth page	𝍸 𝍸
Fifth page	𝍸 𝍸 ////

1. Use the tally chart to make a bar graph of Joe's results.



2. What is the range of the number of problems? 12
(Subtract the smallest number from the greatest number.)

3. What is the average number of problems on a page? 10
(Add the number of problems on each page and divide by 5.)

Joe looked at five more pages of problems.

4. What is the range? 12

5. What is the mean? 8

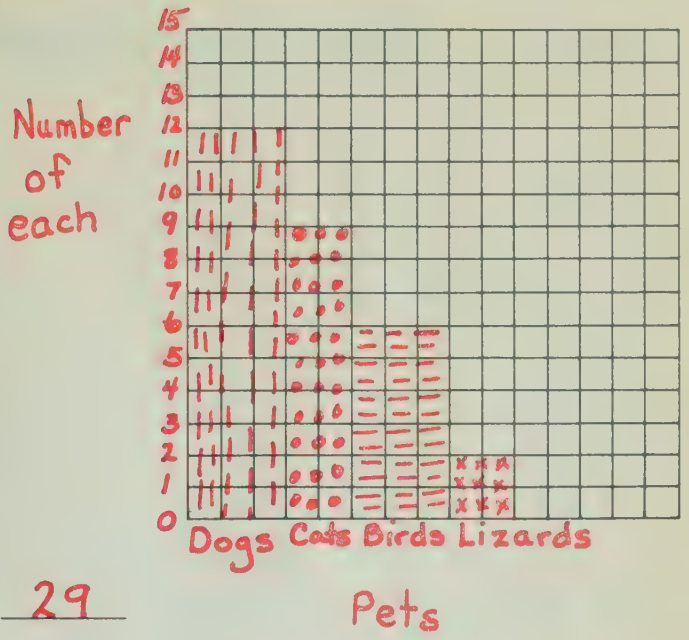
Sixth page	𝍸 ///
Seventh page	𝍸 ////
Eighth page	
Ninth page	𝍸 𝍸 /
Tenth page	𝍸 𝍸 //

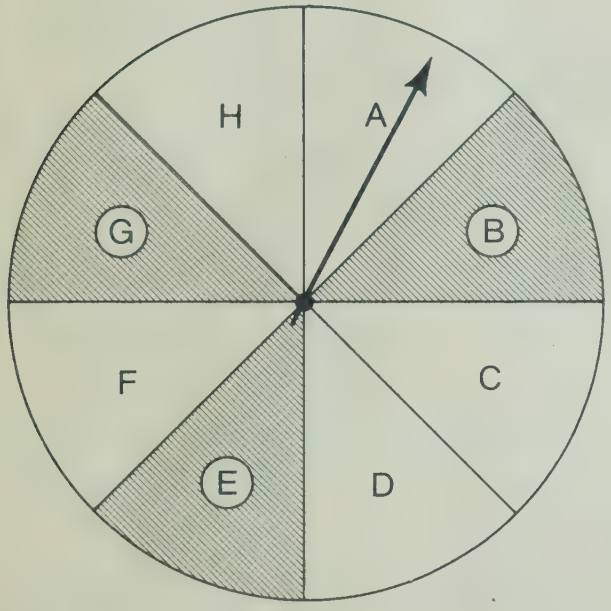
1. Here is a tally chart of the students' pets.

Pets	Number of each	Total
Dogs	𝍸 𝍸 ||	12
Cats	𝍸 ||||	9
Birds	𝍸 |	6
Lizards	||	2

a Make a bar graph to show the results.

b What is the total number of pets? 29





2. **a** What is the probability of the spinner stopping on C? 1/8

b What is the probability of the spinner stopping on D? 1/8

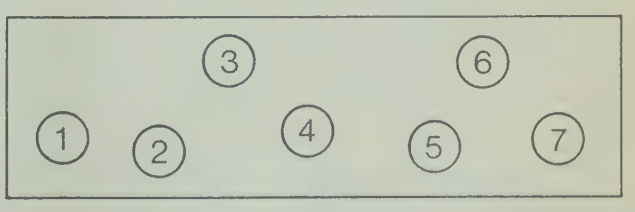
c A bet costs 25¢. Stop on a shaded part, win 50¢. Stop on a white part, win nothing. What are the outcomes that win? B, E, G

d What is the cost of 16 bets? $4.00

e You win 6 times. Do you earn any money? No

3. **a** What is the probability of drawing marble 1? 1/7

b What is the probability of drawing marble 5? 1/7

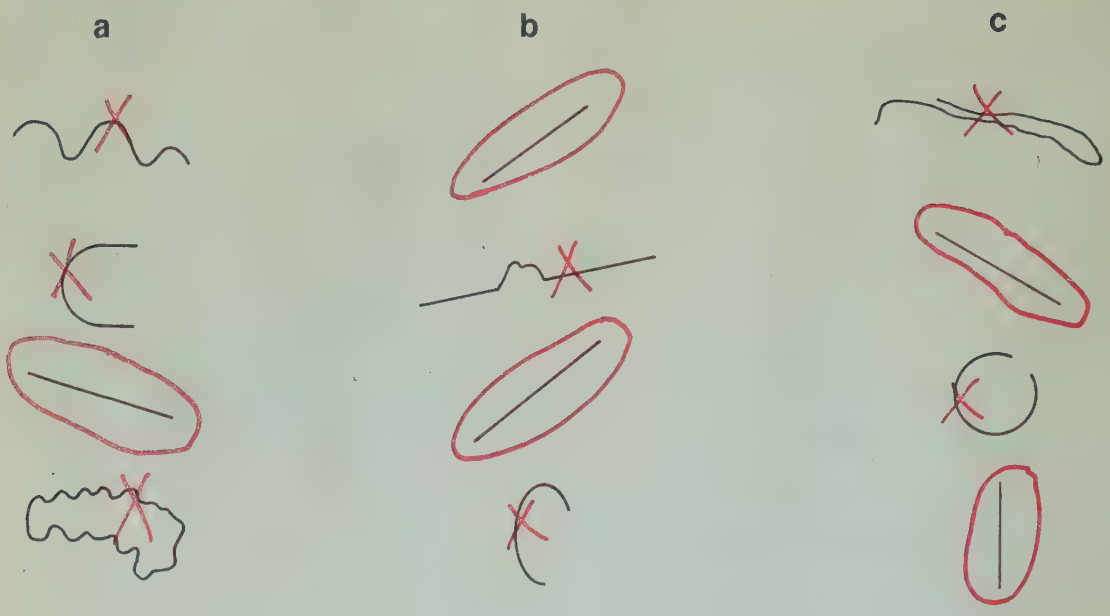


4. Nine students try out for the band. Five will be chosen. What is the probability of being chosen? 5/9

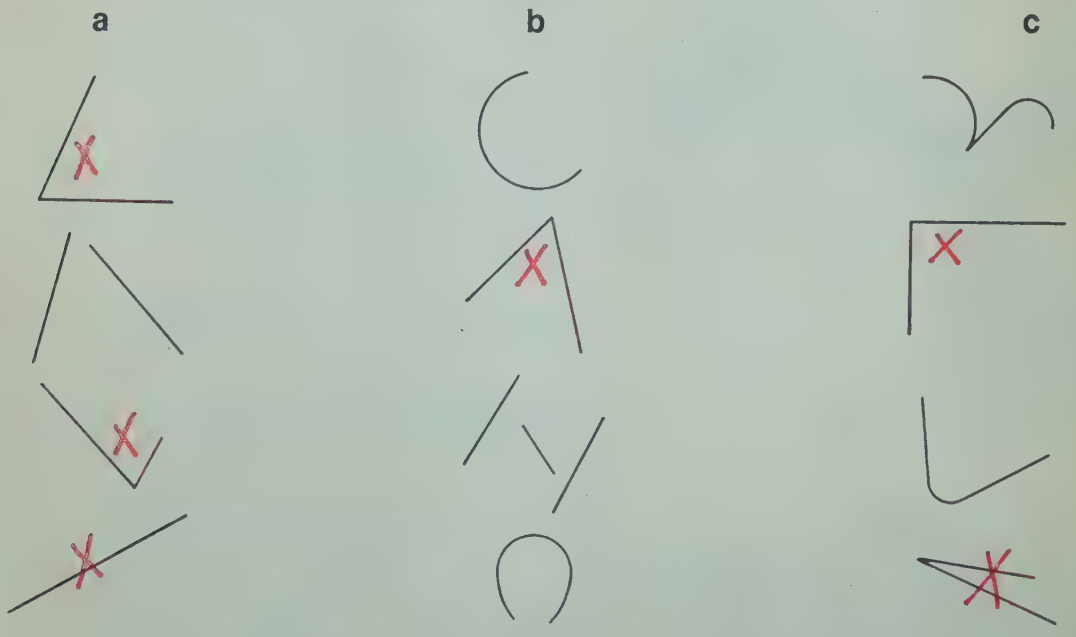
5. Ten marbles in a jar. Five are red. What is the probability that a red marble will be drawn? 5/10 or 1/2

©1976, SRA

Place an X on each curved line. Ring each straight line.

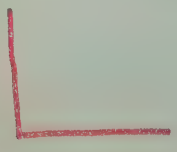


An angle must have two straight sides that come together to form a point.
Place an X on each figure that shows an angle.



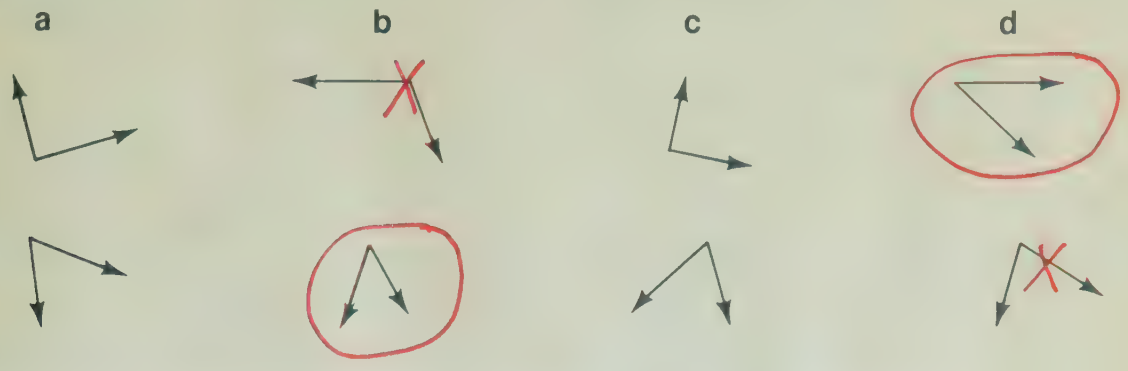
Use a straightedge for this section.

9. Draw a right angle.

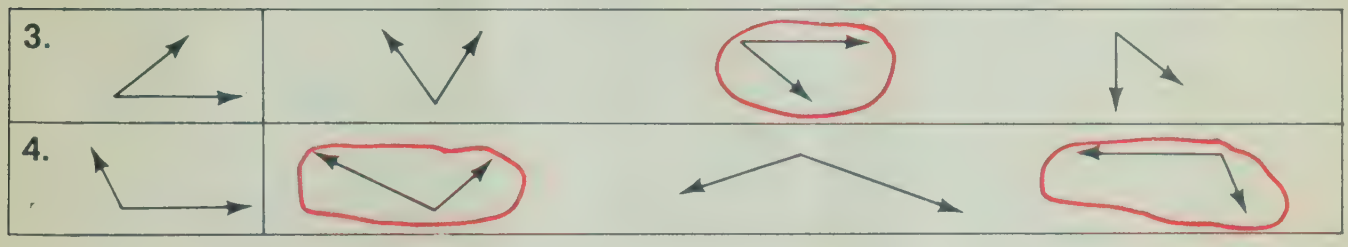


10. Draw a straight angle.

Ring the smallest angle in each set. Place an X on the largest angle.
One way to find out if an angle is a different size is to trace it and put the tracing on top of another angle.

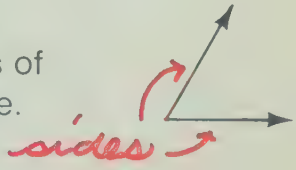


Ring the angles that are the same size as the angle given. You may trace.

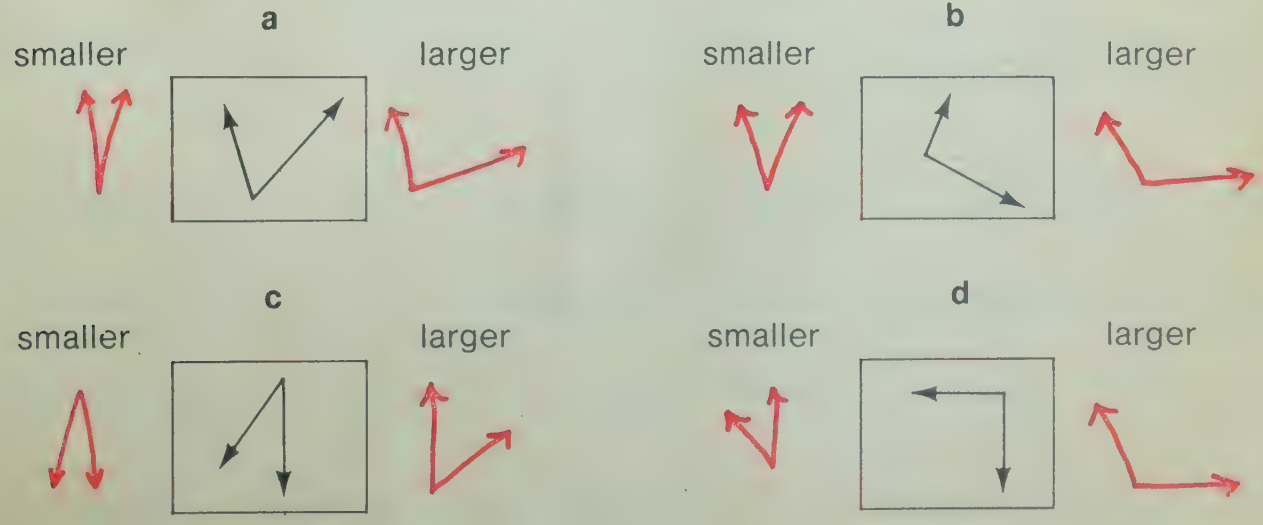


5. Mark the vertex of this angle.

6. Indicate the sides of this angle.

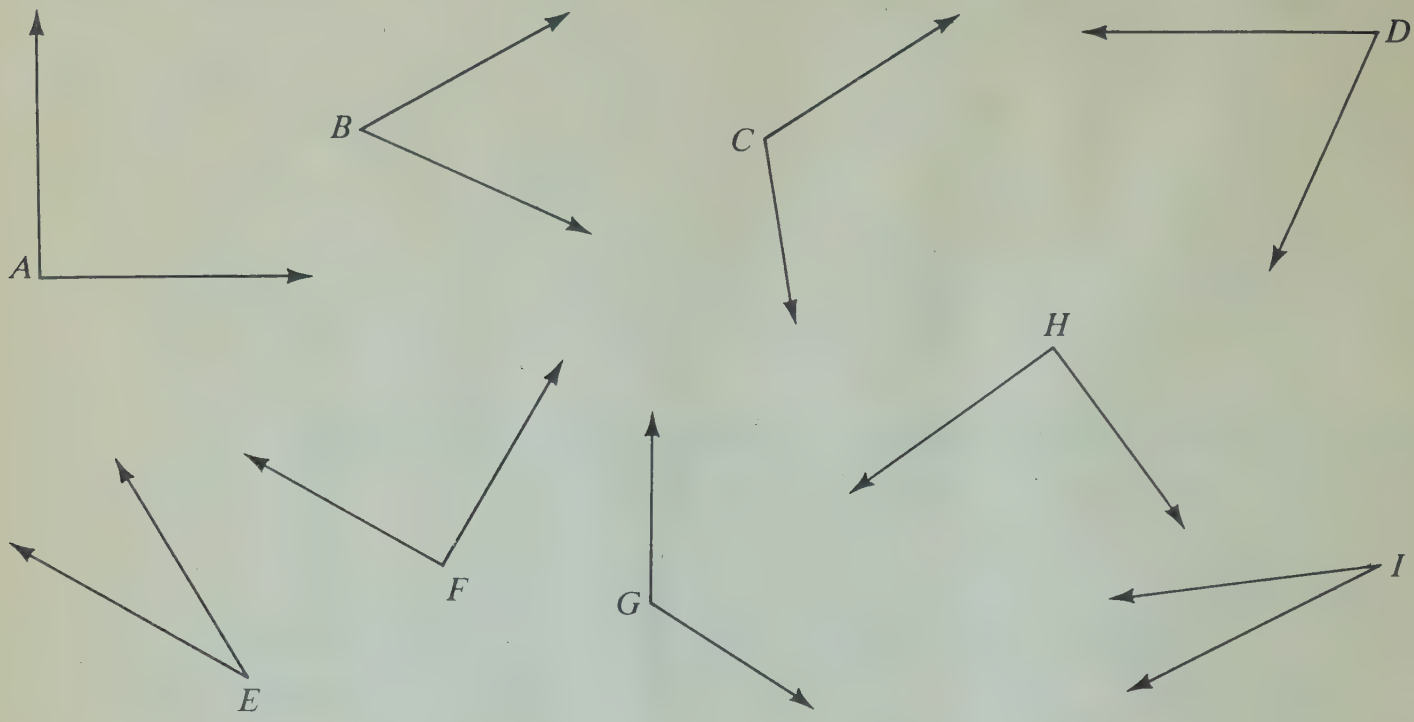


7. Draw one angle larger and one angle smaller than the angle given. Use a straightedge.



©1976, SRA

Use your protractor to measure each angle. You may want to extend the sides before you measure.



a **b** **c**

1. angle A = 90° angle B = 53° angle C = 114°
2. angle D = 67° angle E = 30° angle F = 90°
3. angle G = 121° angle H = 90° angle I = 20°

Use $<$, $>$, or $=$ to complete each sentence.

a **b** **c**

4. angle A (=) angle H angle I (<) angle B angle D (<) angle F
5. angle G (>) angle F angle E (<) angle C angle H (=) angle F
6. angle I (<) angle E angle G (>) angle C angle B (<) angle D

7. Which angle is the largest? G Which angle is the smallest? I

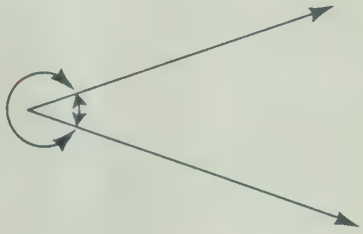
1. Draw a line from the angle name to its description.

a Obtuse angles	Angles less than 90°
b Straight angles	Angles that measure 90°
c Reflex angles	Angles that measure 180°
d Acute angles	Angles that measure more than 90° but less than 180°
e Right angles	Angles greater than 180°

2. Measure the acute angle. 40°

Measure the reflex angle. 320°

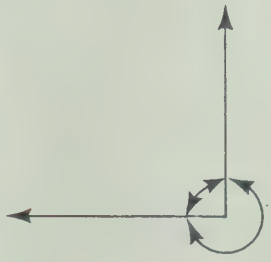
How many degrees in the sum of the two angles? 360°



3. Measure the right angle. 90°

Measure the reflex angle. 270°

How many degrees in the sum of the two angles? 360°

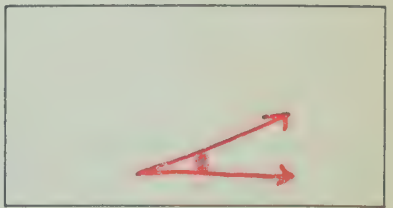


4. In each box draw an angle that fits the description. Use a straightedge.

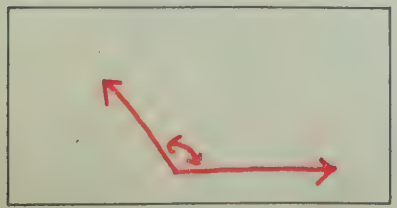
a Right angle

b Angle measuring 90°

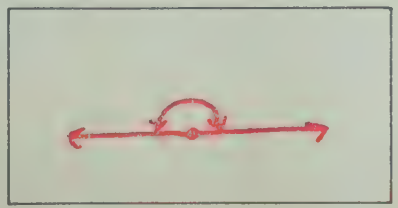
c Acute angle



d Obtuse angle



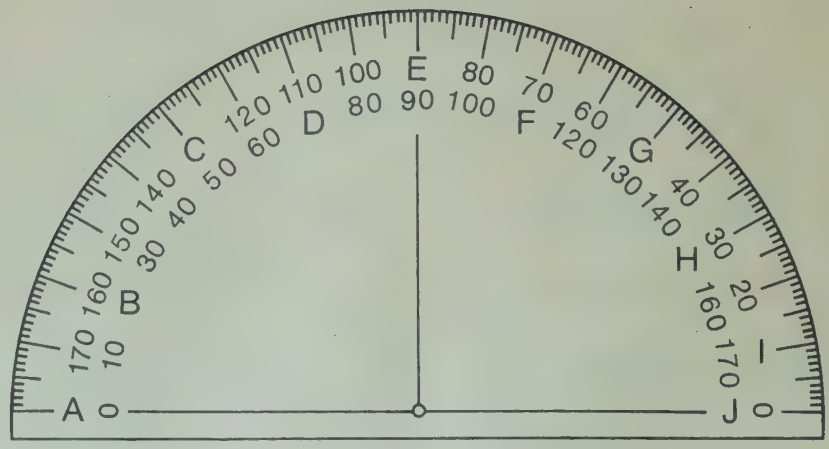
e Straight angle



f Reflex angle

©1976, SRA

1. Look at the protractor. Some of the degree markings are missing. Write the degree markings that are missing.



A 180° B 20°

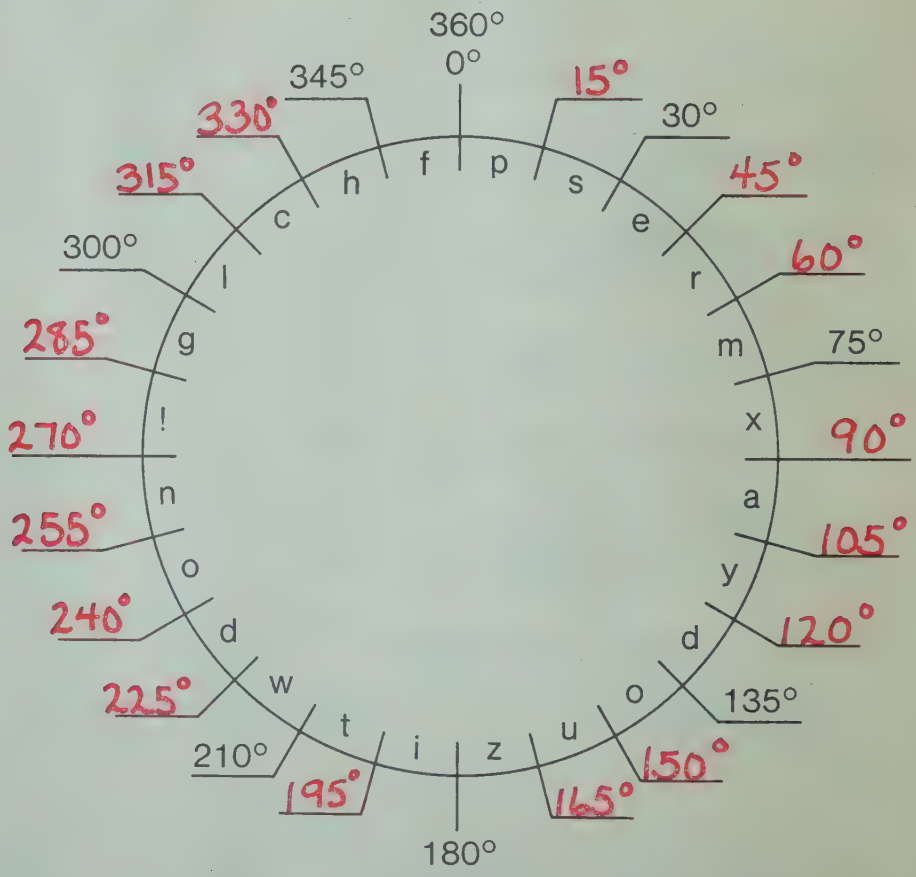
C 130° D 70°

E 90° F 110°

G 50° H 150°

I 10° J 180°

2. This circle has a total of 360°. It is divided into 24 equal sections. Each section is part of a secret code. Complete the code.



3. Use the code to decode this message.

P	r	o	t	r	a	c	t	o	r	s	*
5°	50°	140°	200°	58°	91°	320°	200°	148°	50°	21°	

d	e	c	o	d	e	*	a	n	g	l	e	s
230°	35°	325°	140°	125°	31°		97°	260°	290°	305°	40°	28°

Look at the figures below. Use them to answer these questions.

1. Which figures show angles? a, b, d, f, h, i, j, k, l
2. Which angles are right angles? f, l
3. Which angles are obtuse? a, h
4. Which angles are acute? b, d, i, k

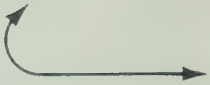
5. Measure the angles with your protractor. Write the measure of each angle, in degrees. Write X if the figure isn't an angle and can't be measured.

a 146°

b 40°

c X

d 83°



e X

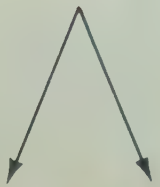
f 90°

g X

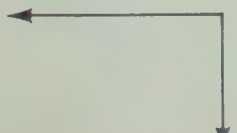
h 95°

i 33°

j 180°



k 45°



l 90°

m X

©1976, SRA

1. Rename each fraction in its simplest form.

Example

$\frac{10}{12} = \frac{10 \div 2}{12 \div 2} = \frac{5}{6}$

a $\frac{5}{15} = \frac{5 \div 5}{15 \div 5} = \frac{1}{3}$

b $\frac{6}{8} = \frac{6 \div 2}{8 \div 2} = \frac{3}{4}$

c $\frac{7}{21} = \frac{7 \div 7}{21 \div 7} = \frac{1}{3}$

d $\frac{9}{27} = \frac{9 \div 9}{27 \div 9} = \frac{1}{3}$

e $\frac{8}{12} = \frac{8 \div 4}{12 \div 4} = \frac{2}{3}$

2. Rename each fraction in its simplest form. (These are harder!)

Example

$\frac{21}{6} = \frac{21 \div 3}{6 \div 3} = \frac{7}{2} = 3\frac{1}{2}$

a $\frac{12}{6} = \frac{12 \div 6}{6 \div 6} = \frac{2}{1} = 2$

b $\frac{16}{12} = \frac{16 \div 4}{12 \div 4} = \frac{4}{3} = 1\frac{1}{3}$

c $\frac{22}{4} = \frac{22 \div 2}{4 \div 2} = \frac{11}{2} = 5\frac{1}{2}$

d $\frac{22}{6} = \frac{22 \div 2}{6 \div 2} = \frac{11}{3} = 3\frac{2}{3}$

e $\frac{35}{5} = \frac{35 \div 5}{5 \div 5} = \frac{7}{1} = 7$

3. Rename each fraction.

Example

$\frac{2}{3} = \frac{16}{24}$

a $\frac{3}{4} = \frac{9}{12}$

b $\frac{1}{3} = \frac{3}{9}$

c $\frac{1}{2} = \frac{8}{16}$

d $\frac{4}{5} = \frac{16}{20}$

e $\frac{5}{8} = \frac{25}{40}$

f $\frac{5}{6} = \frac{20}{24}$

g $\frac{10}{12} = \frac{20}{24}$

h $\frac{2}{7} = \frac{6}{21}$

i $\frac{6}{8} = \frac{18}{24}$

j $\frac{2}{3} = \frac{12}{18}$

k $\frac{2}{5} = \frac{6}{15}$

Rename. Then compute. Make sure your answer is in simplest form.

Examples

$4\frac{1}{2}$ $4\frac{2}{4}$
$+ 1\frac{1}{4}$ $+ 1\frac{1}{4}$
$5\frac{3}{4}$

$5\frac{1}{2}$ $5\frac{4}{8}$
$- 3\frac{3}{8}$ $- 3\frac{3}{8}$
$2\frac{1}{8}$

	a	b	c
1.	$4\frac{1}{2}$ $4\frac{3}{6}$ $+ 1\frac{1}{3}$ $+1\frac{2}{6}$ $5\frac{5}{6}$	$8\frac{1}{2}$ $8\frac{2}{4}$ $- 1\frac{1}{4}$ $-1\frac{1}{4}$ $7\frac{1}{4}$	$7\frac{1}{3}$ $7\frac{3}{9}$ $+ 2\frac{5}{9}$ $+2\frac{5}{9}$ $9\frac{8}{9}$
2.	$2\frac{3}{4}$ $2\frac{3}{4}$ $- 1\frac{1}{2}$ $-1\frac{2}{4}$ $1\frac{1}{4}$	$4\frac{1}{2}$ $4\frac{5}{10}$ $+ 2\frac{2}{10}$ $+2\frac{2}{10}$ $6\frac{7}{10}$	$9\frac{1}{2}$ $9\frac{5}{10}$ $-8\frac{1}{10}$ $-8\frac{1}{10}$ $1\frac{2}{5}$
3.	$3\frac{1}{2}$ $3\frac{6}{12}$ $- 1\frac{3}{12}$ $-1\frac{3}{12}$ $2\frac{1}{4}$	$1\frac{1}{2}$ $1\frac{4}{8}$ $+ 1\frac{3}{8}$ $+1\frac{3}{8}$ $2\frac{7}{8}$	$4\frac{1}{2}$ $4\frac{4}{8}$ $+ 1\frac{2}{8}$ $+1\frac{2}{8}$ $5\frac{3}{4}$
4.	$4\frac{2}{8}$ $4\frac{2}{8}$ $+ 4\frac{2}{4}$ $+4\frac{4}{8}$ $8\frac{3}{4}$	$7\frac{4}{5}$ $7\frac{8}{10}$ $- 6\frac{1}{10}$ $-6\frac{1}{10}$ $1\frac{7}{10}$	$1\frac{1}{2}$ $1\frac{5}{10}$ $+ 1\frac{4}{10}$ $+1\frac{4}{10}$ $2\frac{9}{10}$
5.	$7\frac{2}{3}$ $7\frac{8}{12}$ $- 7\frac{7}{12}$ $-7\frac{7}{12}$ $\frac{1}{12}$	$8\frac{1}{3}$ $8\frac{4}{12}$ $+ 1\frac{1}{12}$ $+1\frac{1}{12}$ $9\frac{5}{12}$	$4\frac{6}{9}$ $4\frac{6}{9}$ $- 2\frac{2}{3}$ $-2\frac{6}{9}$ 2

©1976, SRA

Rename. Then compute. Make sure your answer is in simplest form.

Example

$8\frac{1}{3} \quad 8\frac{8}{24} \quad 7\frac{32}{24}$

$-\,5\frac{3}{8} \quad -5\frac{9}{24} \quad -5\frac{9}{24}$

$2\frac{23}{24}$

Example

$1\frac{2}{3} \quad 1\frac{8}{12}$

$+\,4\frac{3}{4} \quad +4\frac{9}{12}$

$5\frac{17}{12} = 6\frac{5}{12}$

	a	b
1.	$6\frac{1}{5} \quad 6\frac{2}{10} \quad 5\frac{12}{10}$ $-\,4\frac{1}{2} \quad -4\frac{5}{10} \quad -4\frac{5}{10}$ $1\frac{7}{10}$	$1\frac{1}{2} \quad 1\frac{5}{10}$ $+\,4\frac{3}{5} \quad +4\frac{6}{10}$ $5\frac{11}{10} = 6\frac{1}{10}$
2.	$9\frac{1}{5} \quad 9\frac{6}{30} \quad 8\frac{36}{30}$ $-\,1\frac{5}{6} \quad -1\frac{25}{30} \quad -1\frac{25}{30}$ $7\frac{11}{30}$	$7\frac{7}{8} \quad 7\frac{7}{8}$ $+\,8\frac{3}{4} \quad +8\frac{6}{8}$ $15\frac{13}{8} = 16\frac{5}{8}$
3.	$2\frac{1}{2} \quad 2\frac{5}{10}$ $+\,1\frac{8}{10} \quad +1\frac{8}{10}$ $3\frac{13}{10} = 4\frac{3}{10}$	$9 \quad 8\frac{3}{3}$ $-\,4\frac{2}{3} \quad -4\frac{2}{3}$ $4\frac{1}{3}$
4.	$6\frac{4}{10} \quad 6\frac{8}{20}$ $+\,2\frac{1}{4} \quad +2\frac{5}{20}$ $8\frac{13}{20}$	$7\frac{1}{6} \quad 7\frac{1}{6} \quad 6\frac{7}{6}$ $-\,5\frac{1}{3} \quad -5\frac{2}{6} \quad -5\frac{2}{6}$ $1\frac{5}{6}$
5.	$3\frac{1}{6} \quad 3\frac{4}{24} \quad 2\frac{28}{24}$ $-\,2\frac{2}{8} \quad -2\frac{6}{24} \quad -2\frac{6}{24}$ $\frac{22}{24} = \frac{11}{12}$	$5\frac{4}{5} \quad 5\frac{12}{15}$ $+\,5\frac{2}{3} \quad +5\frac{10}{15}$ $10\frac{22}{15} = 11\frac{7}{15}$

Compute. Watch the operation symbols. All answers should be in simplest form.

① $\frac{1}{5} + \frac{3}{5} =$ $\frac{4}{5}$

② $\frac{7}{8} - \frac{2}{8} =$ $\frac{5}{8}$

③ $\frac{1}{6} + \frac{3}{6} =$ $\frac{2}{3}$

④ $\frac{8}{16} - \frac{4}{16} =$ $\frac{1}{4}$

⑤ $\frac{5}{8} + \frac{3}{4} =$ $1\frac{3}{8}$

⑥ $\frac{5}{6} - \frac{2}{3} =$ $\frac{1}{6}$

⑦ $5\frac{3}{5} + 2\frac{1}{5} = 7\frac{4}{5}$

⑧ $7\frac{7}{8} - 3\frac{4}{8} = 4\frac{3}{8}$

⑨ $5\frac{1}{4} + 2\frac{6}{12} = 7\frac{3}{4}$

⑩ $7\frac{1}{3} - 4\frac{2}{3} = 2\frac{2}{3}$

⑪ $3 - 1\frac{5}{8} = 1\frac{3}{8}$

⑫ $5\frac{3}{5} + 3\frac{2}{5} = 9$

⑬ $6\frac{3}{10} - 4\frac{7}{10} = 1\frac{3}{5}$

⑭ $8\frac{5}{6} + 7\frac{1}{3} = 16\frac{1}{6}$

⑮ Carol worked $7\frac{3}{4}$ h on Monday. Tuesday she worked $6\frac{1}{2}$ h. How many hours did she work? $14\frac{1}{4}$ h

She worked $4\frac{2}{3}$ h on Wednesday. How many hours did she work altogether? $18\frac{11}{12}$ h

©1976, SRA

Complete these sentences. Use the number line if you need help.

1. How many 5s in 1?

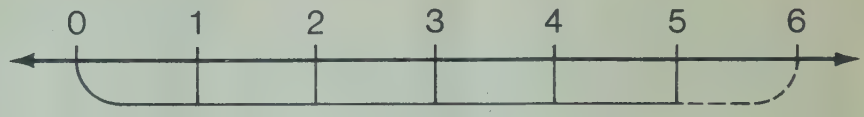
$1 \div 5 = \frac{1}{5}$

2. How many 3s in 2?

$2 \div 3 = \frac{2}{3}$

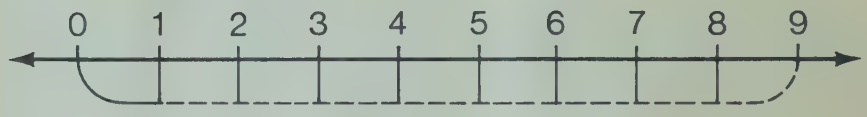
3. How many 6s in 5?

$5 \div 6 = \frac{5}{6}$



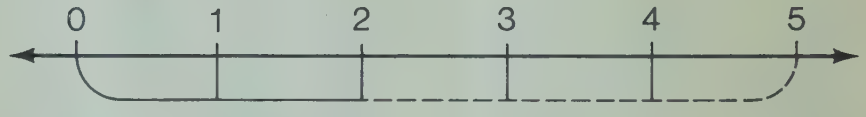
4. How many 9s in 1?

$1 \div 9 = \frac{1}{9}$



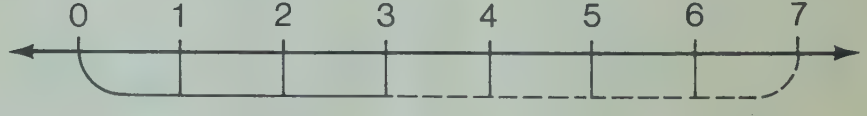
5. How many 5s in 2?

$2 \div 5 = \frac{2}{5}$



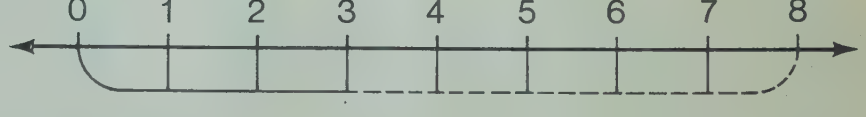
6. How many 7s in 3?

$3 \div 7 = \frac{3}{7}$



7. How many 8s in 3?

$3 \div 8 = \frac{3}{8}$



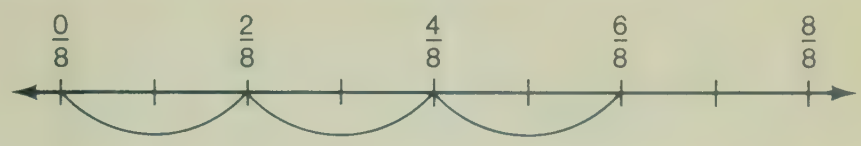
Complete these sentences. Each quotient will be a fraction.

	a	b	c
8.	$5 \div 8 = \frac{5}{8}$	$3 \div 7 = \frac{3}{7}$	$4 \div 5 = \frac{4}{5}$
9.	$1 \div 2 = \frac{1}{2}$	$9 \div 10 = \frac{9}{10}$	$2 \div 9 = \frac{2}{9}$
10.	$7 \div 9 = \frac{7}{9}$	$1 \div 6 = \frac{1}{6}$	$11 \div 12 = \frac{11}{12}$

Complete these sentences. Use the number line if you need help.

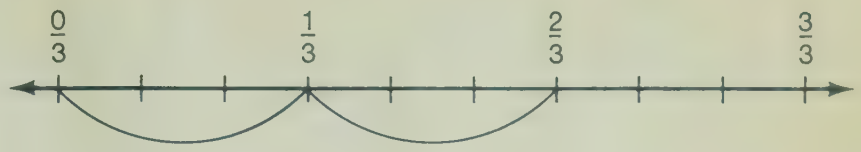
1. How many $\frac{2}{8}$s in $\frac{6}{8}$?

$\frac{6}{8} \div \frac{2}{8} =$ 3



2. How many $\frac{1}{3}$s are in $\frac{2}{3}$?

$\frac{2}{3} \div \frac{1}{3} =$ 2

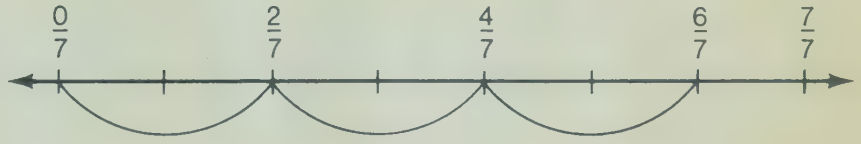


3. How many $\frac{3}{9}$s are in $\frac{6}{9}$?

$\frac{6}{9} \div \frac{3}{9} =$ 2

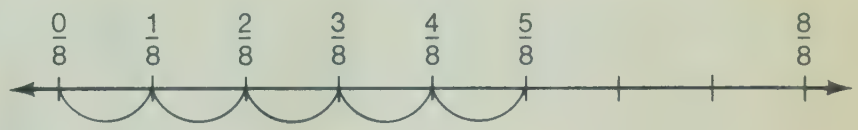
4. How many $\frac{2}{7}$s are in $\frac{6}{7}$?

$\frac{6}{7} \div \frac{2}{7} =$ 3



5. How many $\frac{1}{8}$s are in $\frac{5}{8}$?

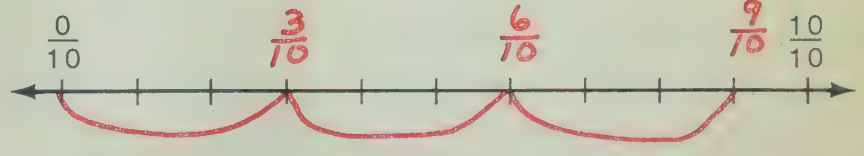
$\frac{5}{8} \div \frac{1}{8} =$ 5



Complete the number line. Then complete the sentence.

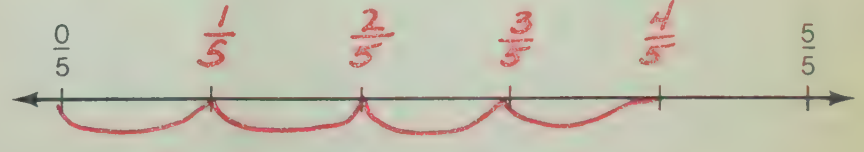
6. How many $\frac{3}{10}$s in $\frac{9}{10}$?

$\frac{9}{10} \div \frac{3}{10} =$ 3



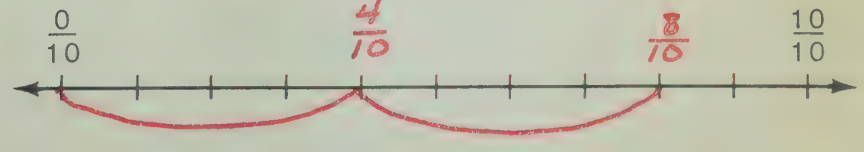
7. How many $\frac{1}{5}$s in $\frac{4}{5}$?

$\frac{4}{5} \div \frac{1}{5} =$ 4



8. How many $\frac{4}{10}$s in $\frac{8}{10}$?

$\frac{8}{10} \div \frac{4}{10} =$ 2



9. How many $\frac{3}{12}$s in $\frac{9}{12}$?

$\frac{9}{12} \div \frac{3}{12} =$ 3

©1976, SRA

Answer each question. Then complete the sentence with > or <.

1. $\frac{6}{8} \div \frac{5}{8}$ (?) 1

a Is there one $\frac{1}{8}$ in $\frac{6}{8}$? Yes

b Is there one $\frac{5}{8}$ in $\frac{6}{8}$? Yes

c Is there more than one $\frac{5}{8}$ in $\frac{6}{8}$? Yes

d $\frac{6}{8} \div \frac{5}{8}$ (>) 1

2. $\frac{6}{6} \div \frac{4}{6}$ (?) 1

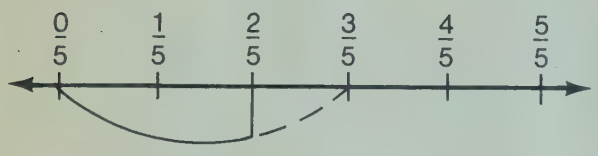
a Is there one $\frac{1}{6}$ in $\frac{6}{6}$? Yes

b Is there one $\frac{4}{6}$ in $\frac{6}{6}$? Yes

c Is there more than one $\frac{4}{6}$ in $\frac{6}{6}$? Yes

d $\frac{6}{6} \div \frac{4}{6}$ (>) 1

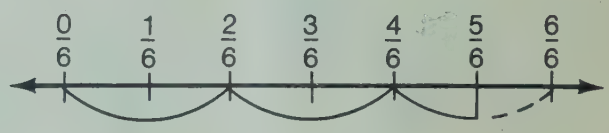
3. $\frac{2}{5} \div \frac{3}{5}$ (?) 1



a Is there one $\frac{3}{5}$ in $\frac{2}{5}$? No

b $\frac{2}{5} \div \frac{3}{5}$ (<) 1

4. $\frac{5}{6} \div \frac{2}{6}$ (?) 1



a Is there one $\frac{2}{6}$ in $\frac{5}{6}$? Yes

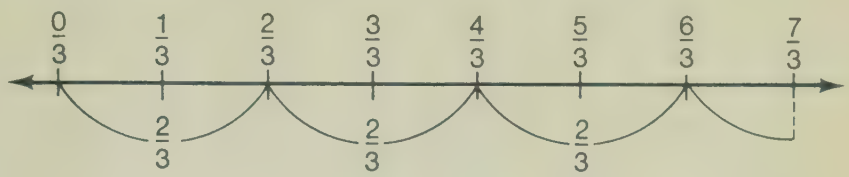
b $\frac{5}{6} \div \frac{2}{6}$ (>) 1

Complete each sentence with > or <.

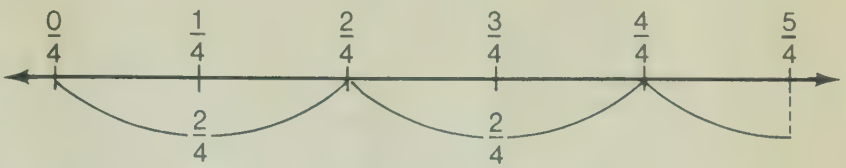
	a	b	c
5.	$\frac{4}{3} \div \frac{2}{3}$ (>) 1	$\frac{2}{7} \div \frac{6}{7}$ (<) 1	$\frac{1}{4} \div \frac{3}{4}$ (<) 1
6.	$\frac{6}{2} \div \frac{3}{2}$ (>) 1	$\frac{7}{8} \div \frac{3}{8}$ (>) 1	$\frac{5}{4} \div \frac{3}{4}$ (>) 1
7.	$\frac{2}{6} \div \frac{3}{6}$ (<) 1	$\frac{9}{5} \div \frac{4}{5}$ (>) 1	$\frac{1}{3} \div \frac{2}{3}$ (<) 1
8.	$\frac{9}{12} \div \frac{5}{12}$ (>) 1	$\frac{6}{8} \div \frac{7}{8}$ (<) 1	$\frac{3}{10} \div \frac{7}{10}$ (<) 1
9.	$\frac{2}{8} \div \frac{3}{8}$ (<) 1	$\frac{11}{12} \div \frac{2}{12}$ (>) 1	$\frac{11}{2} \div \frac{5}{2}$ (>) 1

Use the number line to complete each problem.

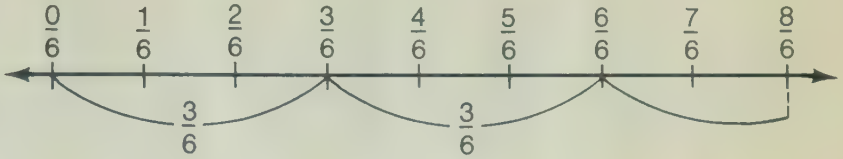
1. $\frac{7}{3} \div \frac{2}{3} =$ $3\frac{1}{2}$



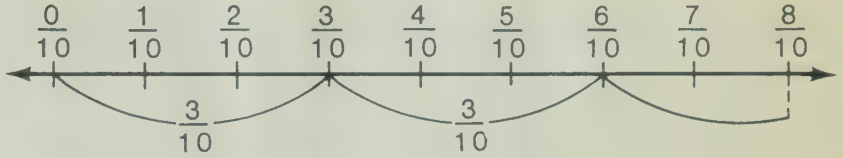
2. $\frac{5}{4} \div \frac{2}{4} =$ $2\frac{1}{2}$



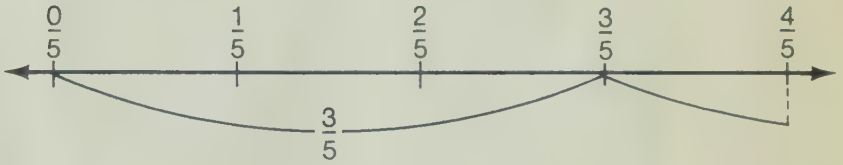
3. $\frac{8}{6} \div \frac{3}{6} =$ $2\frac{2}{3}$



4. $\frac{8}{10} \div \frac{3}{10} =$ $2\frac{2}{3}$

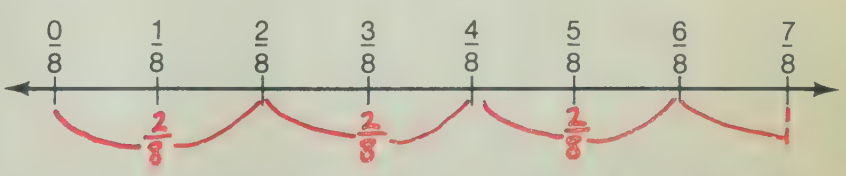


5. $\frac{4}{5} \div \frac{3}{5} =$ $1\frac{1}{3}$

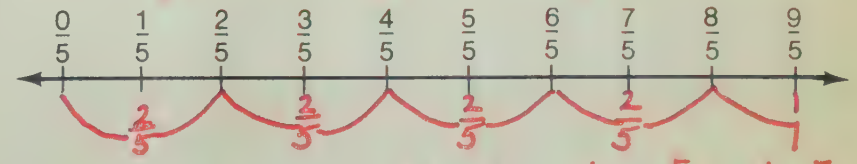


Complete the number line for each problem. Then write the answers.

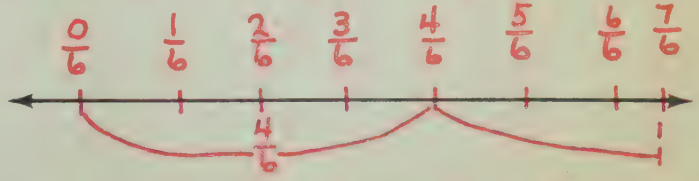
6. $\frac{7}{8} \div \frac{2}{8} =$ $3\frac{1}{2}$



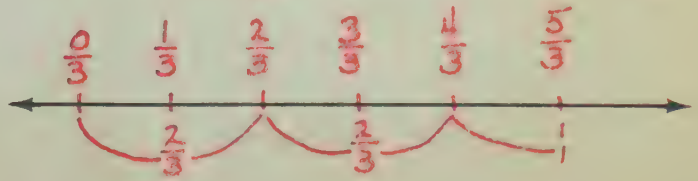
7. $\frac{9}{5} \div \frac{2}{5} =$ $4\frac{1}{2}$



8. $1\frac{1}{6} \div \frac{4}{6} = \frac{7}{6} \div \frac{4}{6} =$ $1\frac{3}{4}$



9. $1\frac{2}{3} \div \frac{2}{3} = \frac{5}{3} \div \frac{2}{3} =$ $2\frac{1}{2}$



©1976, SRA

Draw a picture to show renaming the whole number as a fraction.
Then rename the whole number.

Example

$3 = \frac{12}{4}$

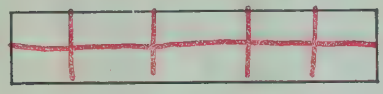
1. $2 = \frac{12}{6}$

2. $2 = \frac{8}{4}$

3. $1 = \frac{8}{8}$

4. $1 = \frac{7}{7}$

5. $3 = \frac{9}{3}$

6. $1 = \frac{10}{10}$ 

7. $3 = \frac{15}{5}$

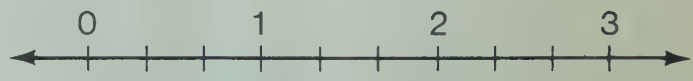
Use the number line to complete each division problem.

Example

$1 \div \frac{1}{3} = \frac{3}{3} \div \frac{1}{3} = 3$

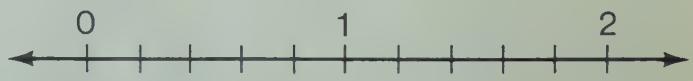
8. $2 \div \frac{1}{4} = \frac{8}{4} \div \frac{1}{4} = 8$

9. $3 \div \frac{1}{3} = \frac{9}{3} \div \frac{1}{3} = 9$



10. $2 \div \frac{1}{6} = \frac{12}{6} \div \frac{1}{6} = 12$

11. $2 \div \frac{1}{5} = \frac{10}{5} \div \frac{1}{5} = 10$



Rename each whole number as a fraction. Then compute.

a

12. $2 \div \frac{4}{6} = \frac{12}{6} \div \frac{4}{6} = 3$

13. $2 \div \frac{3}{9} = \frac{18}{9} \div \frac{3}{9} = 6$

14. $3 \div \frac{2}{4} = \frac{12}{4} \div \frac{2}{4} = 6$

b

$4 \div \frac{2}{3} = \frac{12}{3} \div \frac{2}{3} = 6$

$3 \div \frac{3}{5} = \frac{15}{5} \div \frac{3}{5} = 5$

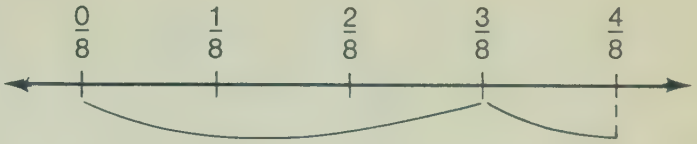
$2 \div \frac{2}{10} = \frac{20}{10} \div \frac{2}{10} = 10$

Complete each problem by finding a common denominator. Then divide.
Use the number line if you need help.

Example

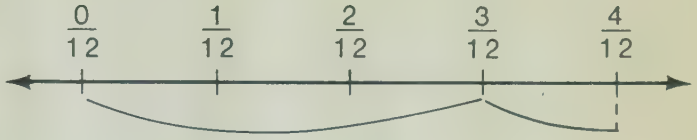
$\frac{1}{2} \div \frac{3}{8}$

$\frac{4}{8} \div \frac{3}{8} = \frac{4}{3} = 1\frac{1}{3}$



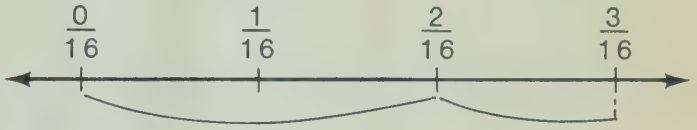
1. $\frac{1}{3} \div \frac{1}{4}$

$\frac{4}{12} \div \frac{3}{12} = \frac{4}{3} = 1\frac{1}{3}$



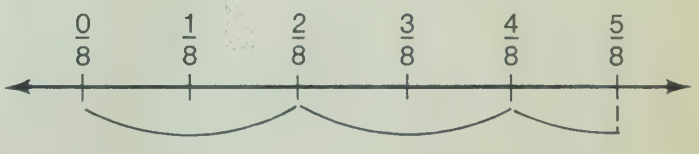
2. $\frac{3}{16} \div \frac{1}{8}$

$\frac{3}{16} \div \frac{2}{16} = \frac{3}{2} = 1\frac{1}{2}$



3. $\frac{5}{8} \div \frac{1}{4}$

$\frac{5}{8} \div \frac{2}{8} = \frac{5}{2} = 2\frac{1}{2}$



Try these without the number line.

4. $\frac{2}{3} \div \frac{1}{2}$

$\frac{4}{6} \div \frac{3}{6} = \frac{4}{3} = 1\frac{1}{3}$

5. $\frac{5}{6} \div \frac{2}{4}$

$\frac{10}{12} \div \frac{6}{12} = \frac{10}{6} = 1\frac{2}{3}$

6. $\frac{1}{2} \div \frac{2}{5}$

$\frac{5}{10} \div \frac{4}{10} = \frac{5}{4} = 1\frac{1}{4}$

7. $\frac{5}{8} \div \frac{1}{3}$

$\frac{15}{24} \div \frac{8}{24} = \frac{15}{8} = 1\frac{7}{8}$

8. $\frac{7}{10} \div \frac{2}{5}$

$\frac{7}{10} \div \frac{4}{10} = \frac{7}{4} = 1\frac{3}{4}$

9. $\frac{4}{5} \div \frac{1}{3}$

$\frac{12}{15} \div \frac{5}{15} = \frac{12}{5} = 2\frac{2}{5}$

©1976, SRA

Divide.

	a	b
1.	$1 \div \frac{1}{9} =$ 9	$1 \div \frac{3}{9} =$ 3
2.	$2 \div \frac{2}{5} =$ 5	$2 \div \frac{2}{10} =$ 10
3.	$2 \div \frac{3}{4} =$ $2\frac{2}{3}$	$2 \div \frac{5}{8} =$ $3\frac{1}{5}$
4.	$3 \div \frac{3}{8} =$ 8	$3 \div \frac{3}{5} =$ 5

Complete each sentence with > or <.

	a	b	c
5.	$\frac{3}{4} \div \frac{1}{2}$ (>) 1	$\frac{9}{10} \div \frac{1}{5}$ (>) 1	$\frac{2}{8} \div \frac{2}{3}$ (<) 1
6.	$\frac{4}{5} \div \frac{3}{8}$ (>) 1	$\frac{1}{2} \div \frac{1}{6}$ (>) 1	$\frac{2}{4} \div \frac{5}{6}$ (<) 1

Divide.

①	$1 \div \frac{1}{5} =$ 5	② $1 \div \frac{3}{4} =$ $1\frac{1}{3}$
③	$3 \div \frac{5}{6} =$ $3\frac{3}{5}$	④ $2 \div \frac{9}{10} =$ $2\frac{2}{9}$
⑤	$\frac{7}{8} \div \frac{3}{4} =$ $1\frac{1}{6}$	⑥ $\frac{4}{5} \div \frac{2}{3} =$ $1\frac{1}{5}$

Find the quotient.

	a	b
1.	$8 \div 2\frac{2}{3} =$ 3	$4 \div 2\frac{1}{2} =$ $1\frac{3}{5}$
2.	$4 \div 3\frac{1}{3} =$ $1\frac{1}{5}$	$2 \div 1\frac{1}{3} =$ $1\frac{1}{2}$
3.	$5 \div 2\frac{3}{4} =$ $1\frac{9}{11}$	$3 \div 1\frac{7}{8} =$ $1\frac{3}{5}$
4.	$4 \div 3\frac{3}{4} =$ $1\frac{1}{15}$	$5 \div 3\frac{1}{5} =$ $1\frac{9}{16}$

Find the quotient.

	a	b
5.	$3\frac{3}{5} \div 4\frac{1}{2} =$ $\frac{4}{5}$	$7\frac{1}{2} \div 1\frac{2}{3} =$ $4\frac{1}{2}$
6.	$5\frac{1}{4} \div 3\frac{1}{2} =$ $1\frac{1}{2}$	$5\frac{5}{6} \div 1\frac{2}{3} =$ $3\frac{1}{2}$
7.	$3\frac{3}{4} \div 1\frac{2}{3} =$ $2\frac{1}{4}$	$6\frac{3}{4} \div 4\frac{1}{2} =$ $1\frac{1}{2}$
8.	$7\frac{4}{5} \div 4\frac{1}{3} =$ $1\frac{4}{5}$	$2\frac{1}{2} \div 1\frac{1}{4} =$ 2
9.	$2\frac{2}{3} \div 1\frac{1}{2} =$ $1\frac{7}{9}$	$5\frac{1}{2} \div 2\frac{1}{4} =$ $2\frac{4}{9}$

©1976, SRA

Add.

	a	b
1.	$\frac{4}{5} + \frac{2}{3} =$ $1\frac{7}{15}$	$2\frac{7}{12} + 2\frac{2}{3} =$ $5\frac{1}{4}$
2.	$\frac{5}{6} + \frac{5}{6} =$ $1\frac{2}{3}$	$\frac{4}{5} + \frac{3}{10} =$ $1\frac{1}{10}$

Subtract.

	a	b
3.	$3\frac{11}{12} - 2\frac{7}{12} =$ $1\frac{1}{3}$	$3 - \frac{2}{3} =$ $2\frac{1}{3}$
4.	$\frac{5}{6} - \frac{1}{6} =$ $\frac{2}{3}$	$3\frac{2}{5} - 1\frac{9}{10} =$ $1\frac{1}{2}$

Divide.

	a	b
5.	$3 \div \frac{3}{4} =$ 4	$4 \div \frac{2}{3} =$ 6
6.	$5 \div 6 =$ $\frac{5}{6}$	$\frac{1}{2} \div \frac{1}{4} =$ 2
7.	$\frac{7}{8} \div \frac{3}{4} =$ $1\frac{1}{6}$	$\frac{2}{5} \div \frac{1}{2} =$ $\frac{4}{5}$
8.	$\frac{3}{5} \div \frac{3}{10} =$ 2	$\frac{1}{3} \div \frac{5}{6} =$ $\frac{2}{5}$
9.	$4 \div 2\frac{1}{2} =$ $1\frac{3}{5}$	$3\frac{1}{4} \div 2\frac{1}{2} =$ $1\frac{3}{10}$

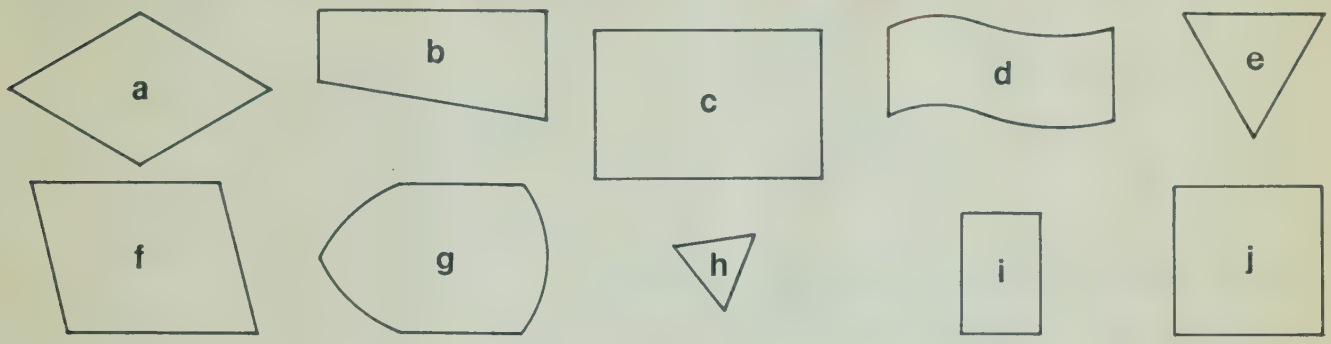
1. Remember, a straight-sided closed figure is a *polygon.*

a Draw a 3-sided polygon.

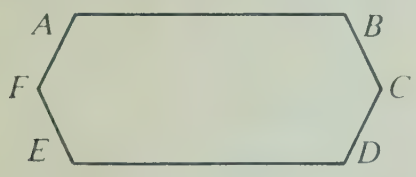
b Draw a 5-sided polygon.

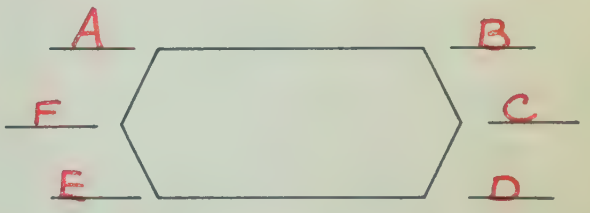
2. A polygon that has every side the same length and every angle the same size is called a *regular polygon.*

Which of these figures are regular polygons? e, h, j



3. Label the corners of this polygon so that it matches the original.



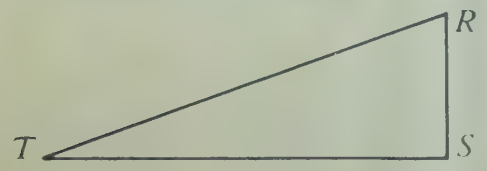


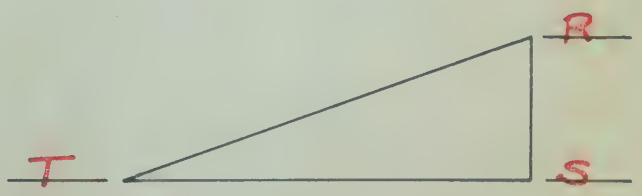
a The sides of this polygon are $\overline{AB}$, $\overline{BC}$, CD, DE, EF, FA.

b How many sides does this polygon have? 6

c Is this a regular polygon? no

4. Label the corners of this polygon so that it matches the original.

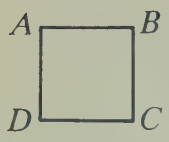




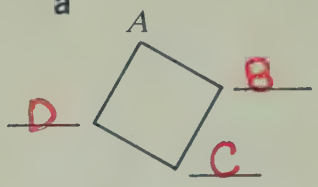
The sides of this polygon are RS, ST, TR.

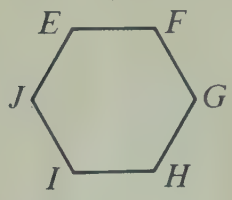
©1976, SRA

1. The figures in each pair are congruent. Complete the labelling.

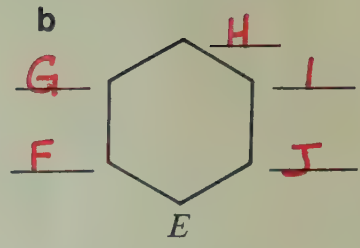


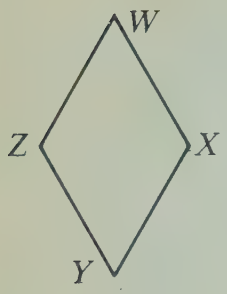
a



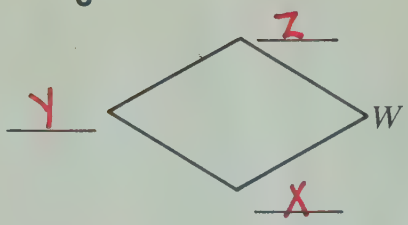


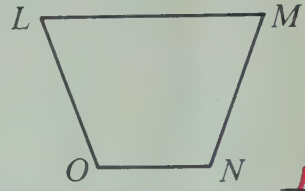
b



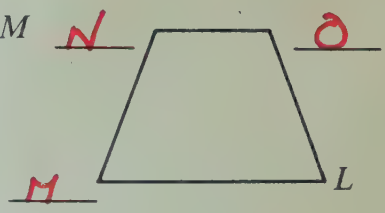


c





d



2. Use figures A and B to complete the following.

a Is figure A congruent with figure B? Yes

b What is the area of A? 18

c What is the area of B? 18

d What is the perimeter of A? 18

e What is the perimeter of B? 18

A

B

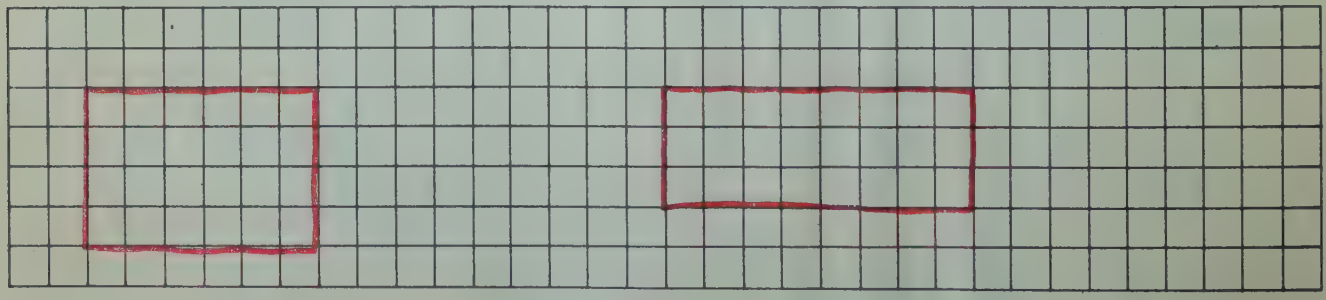
3. The area of polygon C is 24 square units.

C

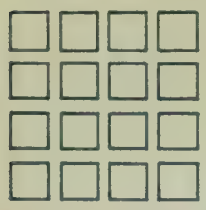
Drawing may vary.

a Draw a polygon that is congruent with C.

b Draw a polygon that has the same area as C but is not congruent with C.



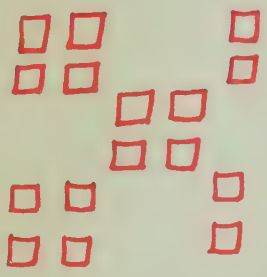
1. This is a drawing of how Tom's classroom is arranged. Make a sketch to show another way it could be arranged.

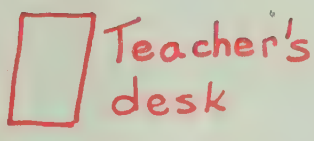


Drawings may vary.

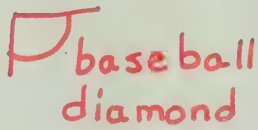
2. This is a drawing of how the city park is arranged. Make a sketch to show another way it could be arranged.

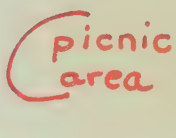
Tom's classroom

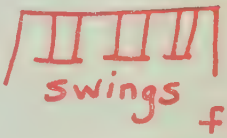


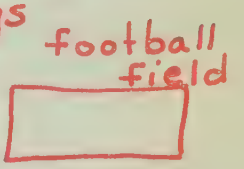


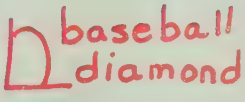
City park





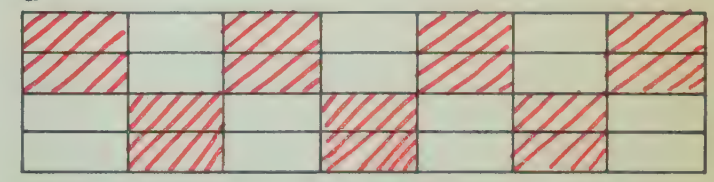


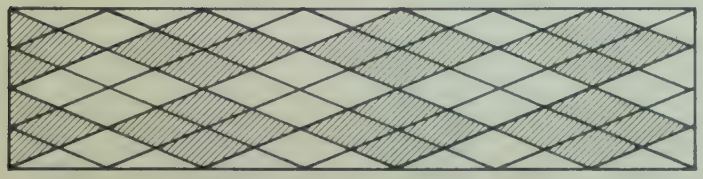




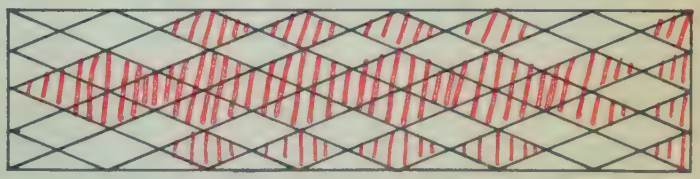
3. Rearrange each pattern.

a

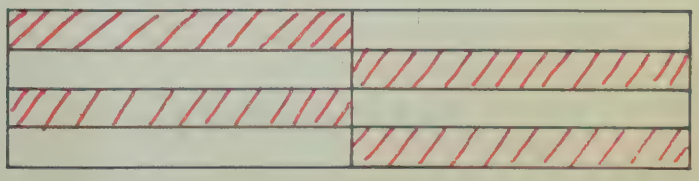




b



c

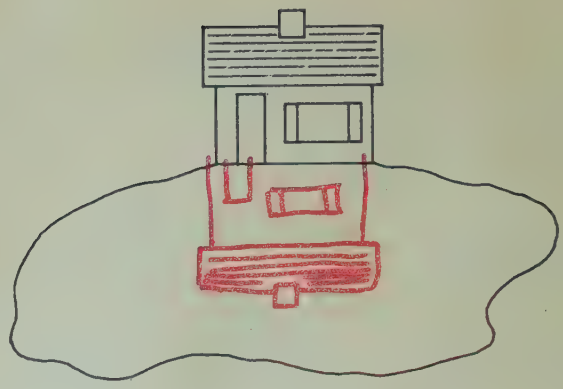


©1976, SRA

1. This building is next to a pond. Draw the reflection of the building in the pond.

a Is the reflection upside down? Yes

b Is the reflection reversed? no



2. This message is written as it would look in a mirror. Write the message.

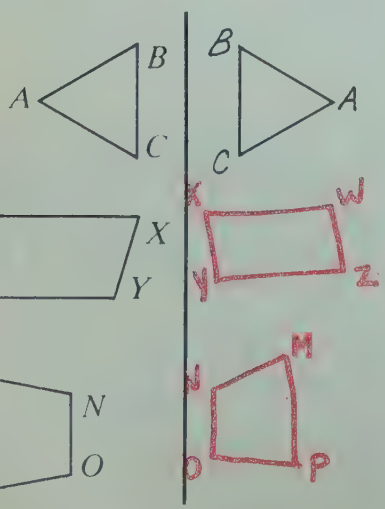
ɹoʇpɹnʇɐS ǝɥʇ ol ǝ,s⅂	Let's go to the pool Saturday

3. Write this message as it would look in a mirror.

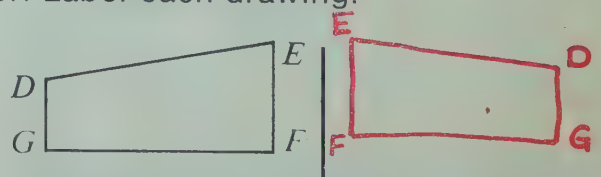
We are going to play soccer tonight	ʇuǝbıuoʇ ɥʇ ǝɔɹoɔ ʎlɐd oʇ buıoƃ ǝɹɐ ǝM

4. Draw each shape as it would look in a mirror. Label each drawing.

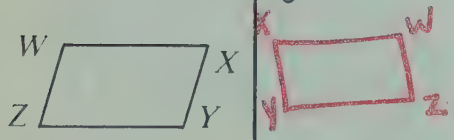
Example



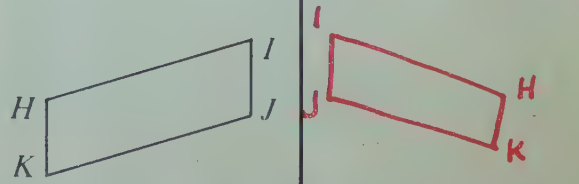
a



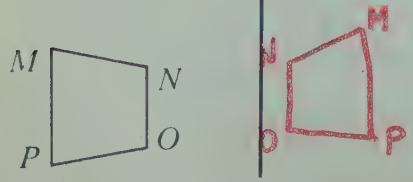
b



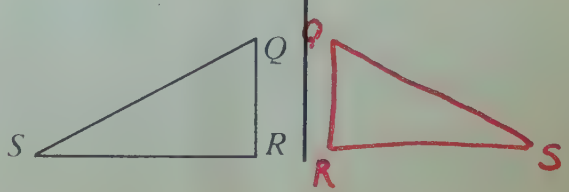
c



d

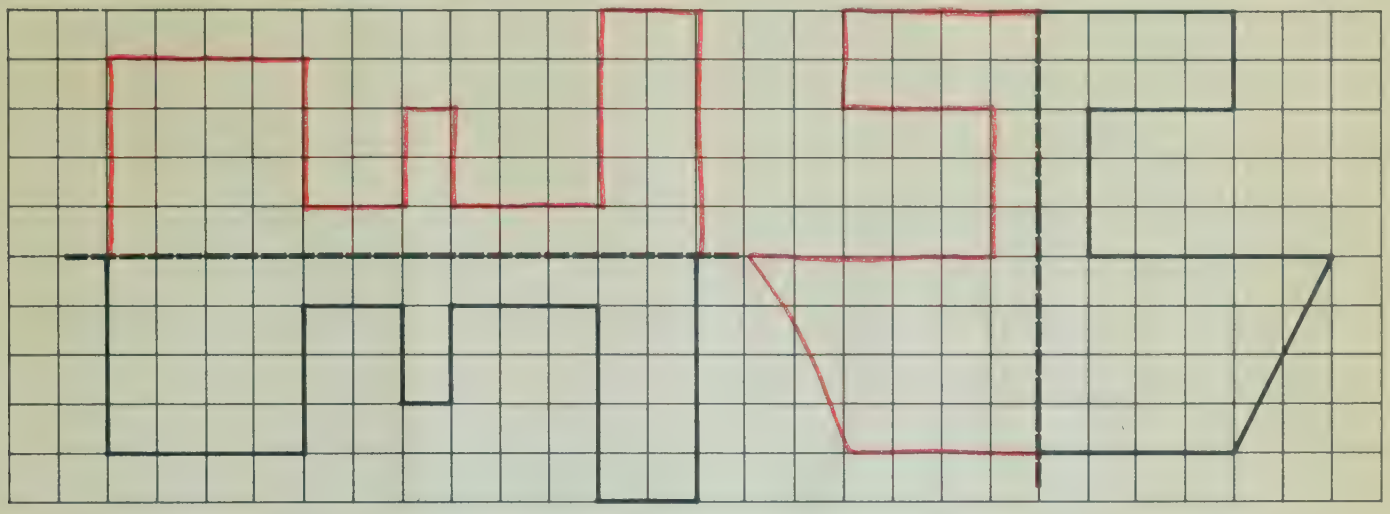


e



1. Complete each drawing so that the broken line is the axis of symmetry for the figure.

a b



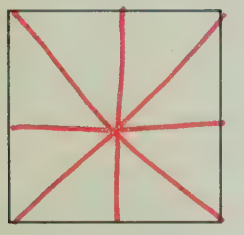
2. Draw the axis of symmetry for each of these faces.

a

b

c

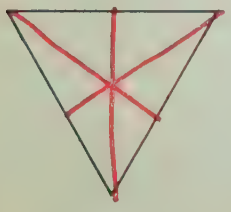
3. Draw all the axes of symmetry for each polygon.

X 

a How many sides does X have? 4

b How many angles does X have? 4

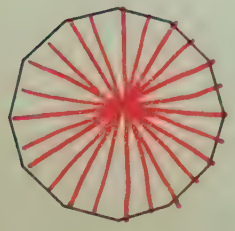
c How many axes of symmetry does X have? 4

Y 

d How many sides does Y have? 3

e How many angles does Y have? 3

f How many axes of symmetry does Y have? 3

Z 

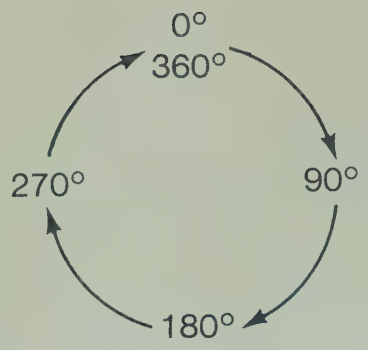
g How many sides does Z have? 12

h How many angles does Z have? 12

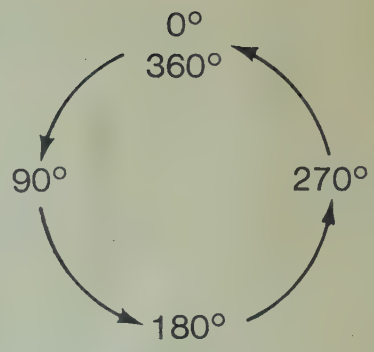
i How many axes of symmetry does Z have? 12

©1976, SRA

1. Clockwise rotation



Counter-clockwise rotation



a Which degree markings are the same for clockwise and counterclockwise rotations?

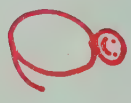
0° 360° 180°

b Which degree markings are different?

90° 270°

2. Complete both tables.

a

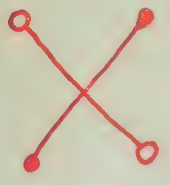
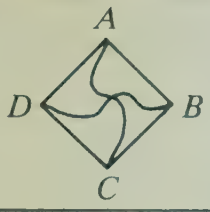
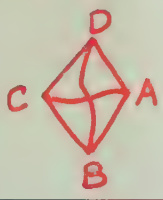
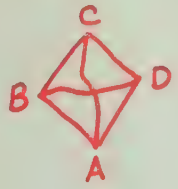
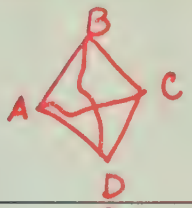
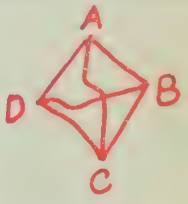
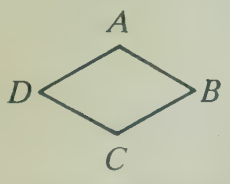
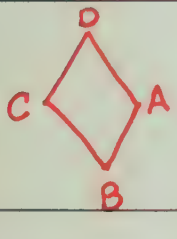
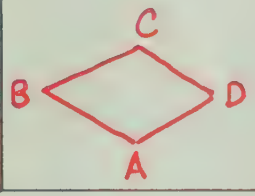
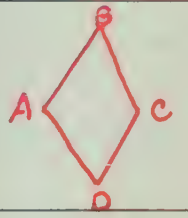
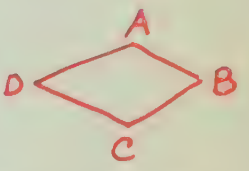
Original position	Rotate 90° clockwise	Rotate 180° clockwise	Rotate 270° clockwise	Rotate 360° clockwise
				

b

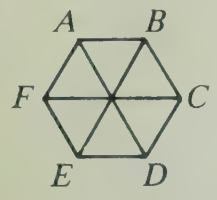
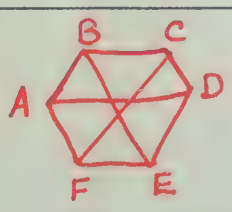
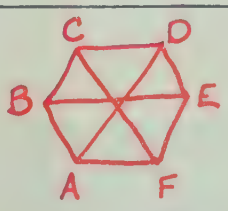
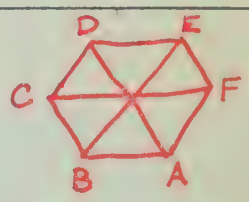
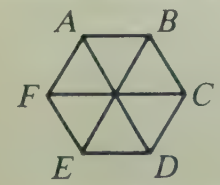
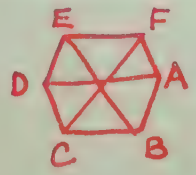
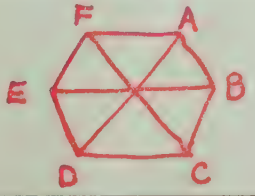
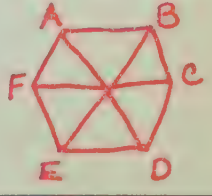
Original position	Rotate 90° counter-clockwise	Rotate 180° counter-clockwise	Rotate 270° counter-clockwise	Rotate 360° counter-clockwise

1. Complete both tables.

a

Original position	Rotate 90° clockwise	Rotate 180° clockwise	Rotate 270° clockwise	Rotate 360° clockwise
				
				
				

b

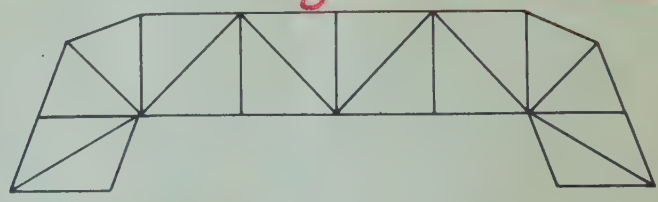
Original position	Rotate 60° counter-clockwise	Rotate 120° counter-clockwise	Rotate 180° counter-clockwise
			
Original position	**Rotate 240° counter-clockwise**	**Rotate 300° counter-clockwise**	**Rotate 360° counter-clockwise**
			

©1976, SRA

1. Here are two pictures of John that were taken the same day.

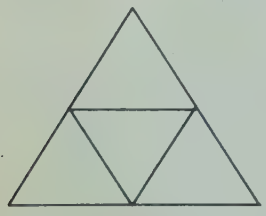
Why does John look smaller in picture A than in picture B? He is farther away from the camera.

2. Why are structures such as bridges made with triangular shapes?

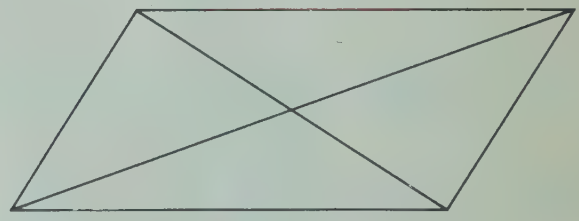


Triangles are stronger than rectangles, they don't collapse.

3. How many triangles can you find in each figure?

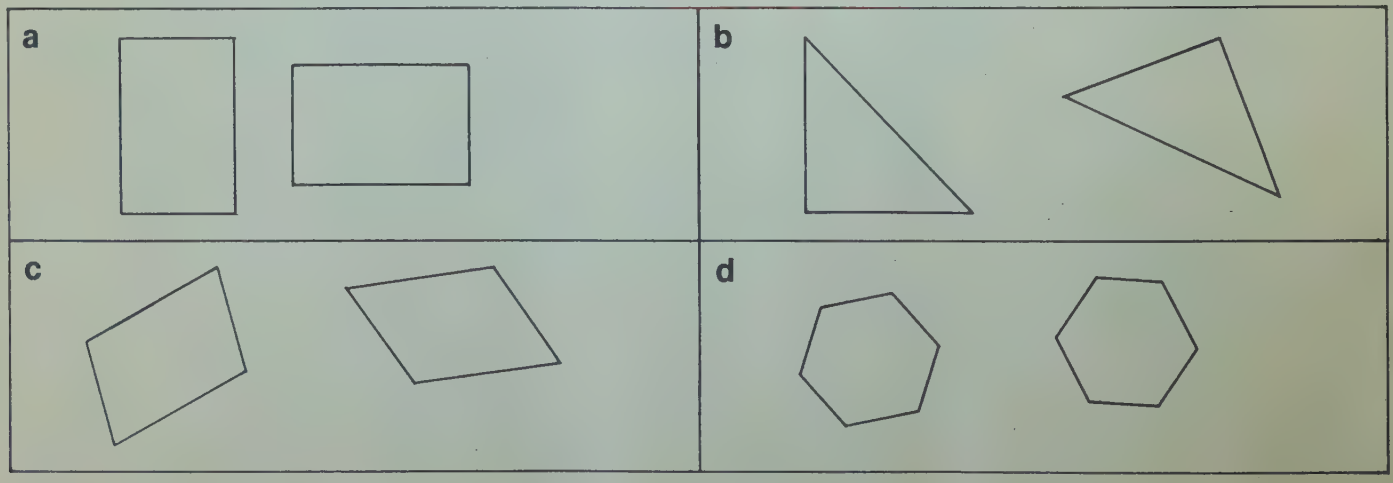


a 5



b 8

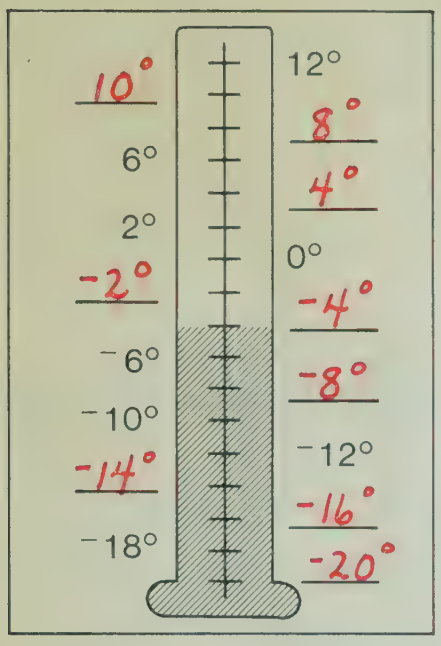
4. Which pairs of polygons are congruent? a, b, d



1. Label the degree markings for this thermometer.

2. What temperature is shown on the thermometer in problem 1? -4°

degrees Celsius



3. Look at each pair of temperatures. Ring the lower temperature. (Use the thermometer in problem 1 if you need help.)

a (3°) or 5°
b 2° or (-8°)
c -2° or (-9°)
d (-1°) or 0°
e 1° or (0°)
f (-6°) or 6°
g (-18°) or -3°
h 5° or (0°)
i -15° or (-20°)
j -8° or (-11°)
k 4° or (0°)
l (-20°) or -7°

4. Describe each situation with either a positive or negative number.

Example

John lost 3 cents. -3

a Mary found 5¢. +5

b You lost 6 marbles. -6

c The temperature fell 9°. -9

d You won $21. +21

e Bill grew 1 cm . +1

f Your 2 dogs ran away. -2

g 4 eggs hatched. +4

h The diver went 6 m below sea level. -6

i Jean had 20 correct answers on the quiz. +20

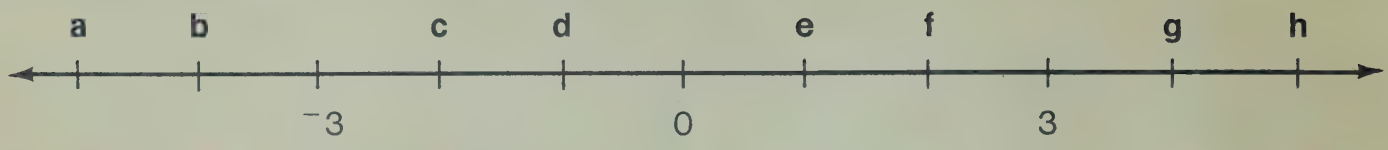
j Sally missed 4 questions on the quiz. -4

k Bob dropped 14 eggs. -14

l Cathy was 12 min late. -12

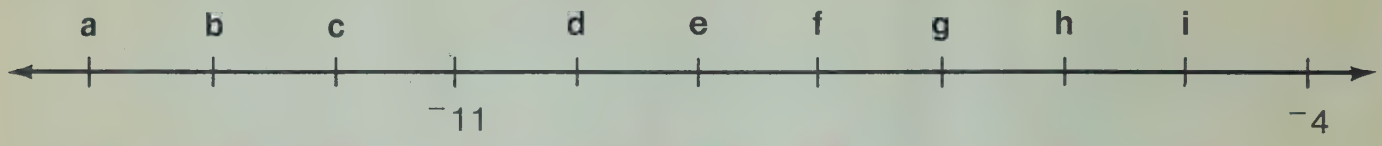
©1976, SRA

1. Complete the labelling of this number line.



-5 -4 -2 -1 1 2 4 5

2. This is the same number line as in problem 1.
It has been extended to the left. Label it.



-14 -13 -12 -10 -9 -8 -7 -6 -5

3. Use the number line in problems 1 and 2 to answer the questions.
Example

Is $^{-}3 > {}^{-}2$? no — Is $^{-}3$ placed to the left or right of $^{-}2$? left

a Is $^{-}4 < 4$? yes — Is $^{-}4$ placed to the left or right of 4? left

b Is $^{-}10 > {}^{-}1$? no — Is $^{-}10$ placed to the left or right of $^{-}1$? left

c Is $3 > {}^{-}6$? yes — Is 3 placed to the left or right of $^{-}6$? right

d Is $^{-}1 < 0$? yes — Is $^{-}1$ placed to the left or right of 0? left

e Is $^{-}14 < {}^{-}11$? yes — Is $^{-}14$ placed to the left or right of $^{-}11$? left

f Is $2 < 5$? yes — Is 2 placed to the left or right of 5? left

g Is $^{-}9 > {}^{-}8$? no — Is $^{-}9$ placed to the left or right of $^{-}8$? left

4. Use the number line in problems 1 and 2 to answer these questions.
Example

How far from 0 is $^{-}9$? 9 units — In which direction? left

a How far from 0 is 5? 5 units — In which direction? right

b How far from 0 is $^{-}14$? 14 units — In which direction? left

c How far from 1 is $^{-}1$? 2 units — In which direction? left

d How far from $^{-}5$ is 3? 8 units — In which direction? right

e How far from $^{-}9$ is $^{-}6$? 3 units — In which direction? right

f How far from $^{-}3$ is $^{-}14$? 11 units — In which direction? left

Make each sentence true by writing > or <.

	a	b	c	d
1.	$^{+}5 \; > \; ^{-}5$	$^{-}3 \; < \; 0$	$^{+}4 \; > \; ^{-}4$	$^{+}8 \; < \; ^{+}9$
2.	$^{-}1 \; < \; 0$	$^{+}5 \; > \; 0$	$^{-}7 \; < \; ^{-}2$	$^{+}6 \; > \; ^{-}1$
3.	$^{-}5 \; < \; ^{-}3$	$^{-}1 \; > \; ^{-}9$	$^{-}5 \; > \; ^{-}10$	$^{-}11 \; < \; ^{+}1$
4.	$^{+}8 \; > \; ^{-}7$	$^{-}3 \; < \; ^{-}1$	$^{-}10 \; > \; ^{-}12$	$^{-}15 \; < \; ^{-}12$
5.	$^{-}6 \; < \; ^{-}4$	$^{-}9 \; < \; 0$	$^{-}5 \; < \; 1$	$0 \; < \; 1$

6. Arrange each set of integers in order from least to greatest.

a	0, $^{-}4$, 2, $^{+}3$, 4, $^{-}3$	$^{-}4$, $^{-}3$, 0, 2, $^{+}3$, 4
b	$^{-}6$, $^{+}6$, $^{+}9$, $^{-}9$, 0, $^{+}5$	$^{-}9$, $^{-}6$, 0, $^{+}5$, $^{+}6$, $^{+}9$
c	$^{-}12$, $^{-}14$, 7, 3, 0, $^{-}8$	$^{-}14$, $^{-}12$, $^{-}8$, 0, 3, 7
d	$^{-}11$, $^{-}9$, $^{-}1$, $^{-}6$, $^{-}10$, $^{-}2$	$^{-}11$, $^{-}10$, $^{-}9$, $^{-}6$, $^{-}2$, $^{-}1$

Write *true* or *false* for each sentence.

true (1) $^{+}1$ is greater than any negative integer.

true (2) 0 is greater than any negative integer.

true (3) $^{-}1$ is greater than any other negative integer.

false (4) $^{-}100\,000$ is the smallest negative integer.

true (5) Every positive integer is greater than any negative integer.

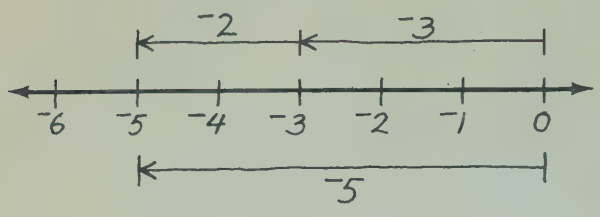
Arrange each set of integers in order from greatest to least.

(6)	$^{-}5$, $^{+}5$, $^{-}3$, $^{+}3$, 0, $^{+}2$	$^{+}5$, $^{+}3$, $^{+}2$, 0, $^{-}3$, $^{-}5$
(7)	$^{-}3$, $^{-}9$, $^{-}2$, 0, $^{-}14$, $^{-}5$	0, $^{-}2$, $^{-}3$, $^{-}5$, $^{-}9$, $^{-}14$
(8)	$^{-}8$, $^{+}9$, $^{-}15$, $^{-}1$, $^{+}8$, $^{+}2$	$^{+}9$, $^{+}8$, $^{+}2$, $^{-}1$, $^{-}8$, $^{-}15$
(9)	$^{-}1$, 0, $^{-}3$, $^{-}2$, $^{+}1$, $^{+}3$	$^{+}3$, $^{+}1$, 0, $^{-}1$, $^{-}2$, $^{-}3$

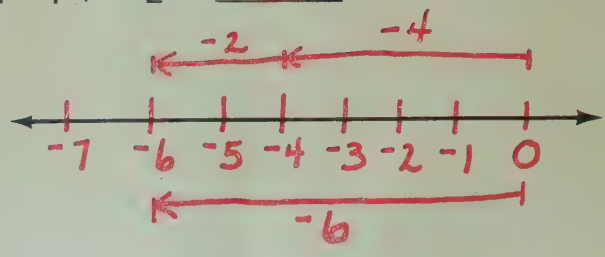
©1976, SRA

Draw a number-line diagram for each problem.
Then complete the sentence.
Example

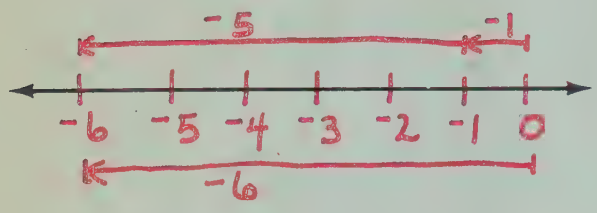
$^{-}3 + {}^{-}2 =$ $^{-}5$



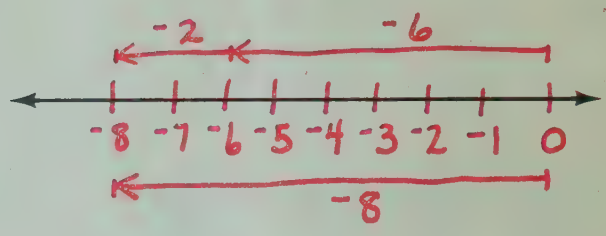
1. $^{-}4 + {}^{-}2 =$ -6



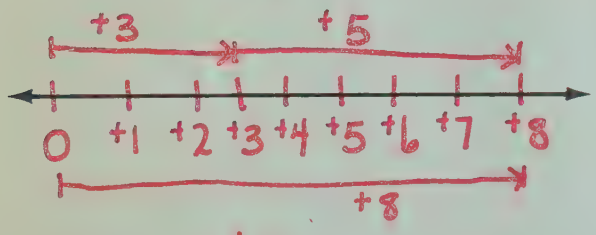
2. $^{-}1 + {}^{-}5 =$ -6



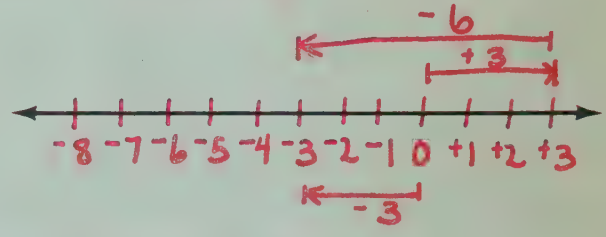
3. $^{-}6 + {}^{-}2 =$ -8



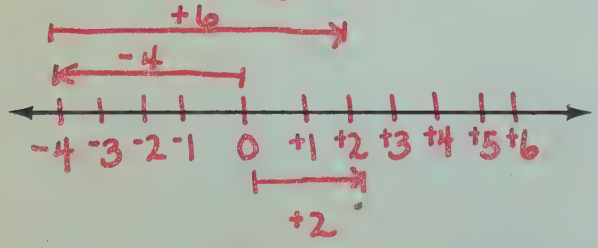
4. $^{+}3 + {}^{+}5 =$ $+8$



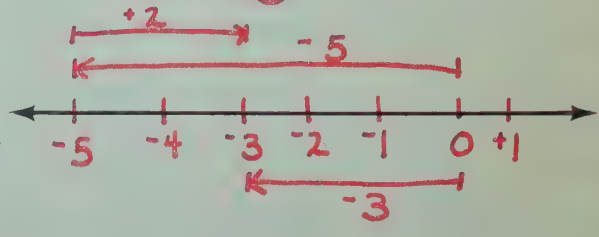
5. $^{+}3 + {}^{-}6 =$ -3



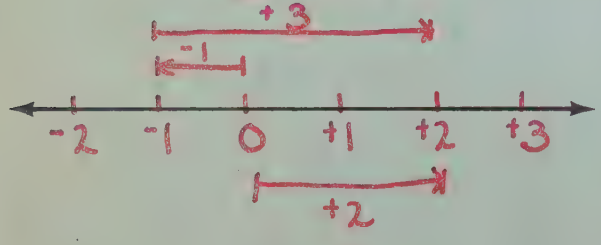
6. $^{-}4 + {}^{+}6 =$ $+2$



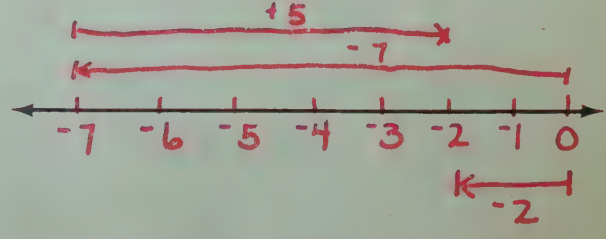
7. $^{-}5 + {}^{+}2 =$ -3



8. $^{-}1 + {}^{+}3 =$ $+2$

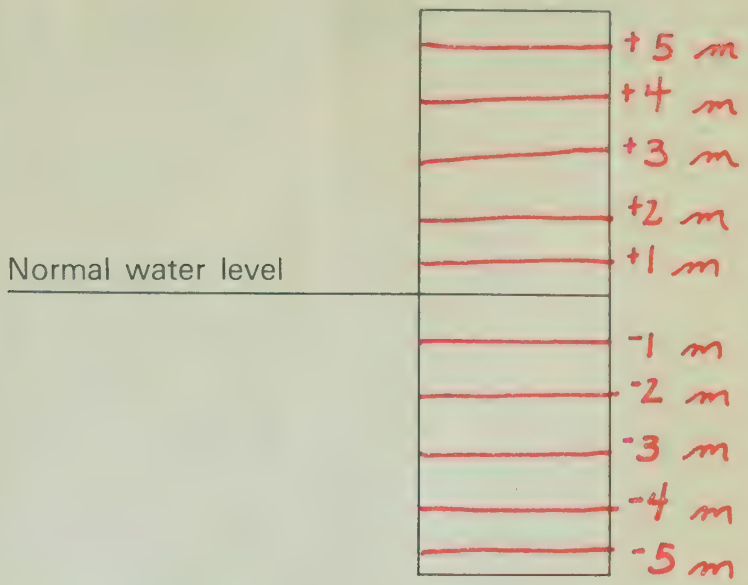


9. $^{-}7 + {}^{+}5 =$ -2



1. Large bodies of water often have water-level markers. These markers help people tell if the water level is high or low. The water level in this lake is sometimes as high as 5 m above normal. Sometimes it is as much as 5 m below normal.

Design a scale that could be used to determine the level of the water.



2. You owe Bill $7. You owe Carol $5. How much money do you need to pay your debts? $12

3. A group of dieters are keeping a record of how many kilograms they gain or lose over a three week period. Negative integers show kilograms they have lost and positive integers show kilograms they have gained. Complete the chart to show each dieter's gains or losses.

	Dieters	First week	Second week	Third week	Total gains or losses
a	Joy	+2	-3	0	-1
b	Nelson	-1	-2	-3	-6
c	Sue	-2	+4	-1	+1
d	Bob	0	-3	+1	-2
e	Joe	-5	-1	+3	-3
f	Betty	+1	0	-4	-3
g	Lee	-3	-2	0	-5
h	Carol	-8	+4	-3	-7

©1976, SRA

Anne likes to take advantage of the weekly specials her local supermarket offers. This week's specials include:

Prime Rib Roast $2.88/kg	Beans $0.74/kg	Cheese $2.90/kg
Beef Sausage $1.98/kg	Pears $0.58/kg	Liver $1.08/kg

Her shopping list for this week includes the items listed below. Compute how much she paid for each item.

①	Prime Rib Roast	3.43 kg	$9.88
②	Cheese	1.50 kg	$4.35
③	Beans	2.00 kg	$1.48
④	Pears	1.50 kg	$0.87
⑤	Liver	1.50 kg	$1.62
⑥	Sausage	2.60 kg	$5.15

⑦ What is her total bill for these items? $23.35

⑧ George is going to carpet his living room and bedroom. His living room is 24 m^2 and his bedroom is 16 m^2. How much will it cost to carpet each room if the carpeting costs $10.95/$m^2$?

$262.80

$175.20

1. Use this chart to compute the kilojoules John used for each activity.

81.5 kJ/min for running
47.0 kJ/min for swimming
33.0 kJ/min for bicycle riding
22.0 kJ/min for walking

a John rode his bicycle 39 min going to Tom's house. 1287 kJ

b He and Tom ran around the block. The race lasted 12 min . 978 kJ

c John and Tom walked 15 min to get to the pool. 330 kJ

d At the pool they swam for 1 h . 2820 kJ

e How many kilojoules did John use up for all these activities? 5415 kJ

---

① How many litres in a decalitre? in a hectolitre? 10 l 100 l

② How many decilitres in a litre? millilitres in a litre? 10 dl 1000 ml

③ List these units of capacity in order from smallest to largest.

hectolitre millilitre

millilitre centilitre

decilitre decilitre

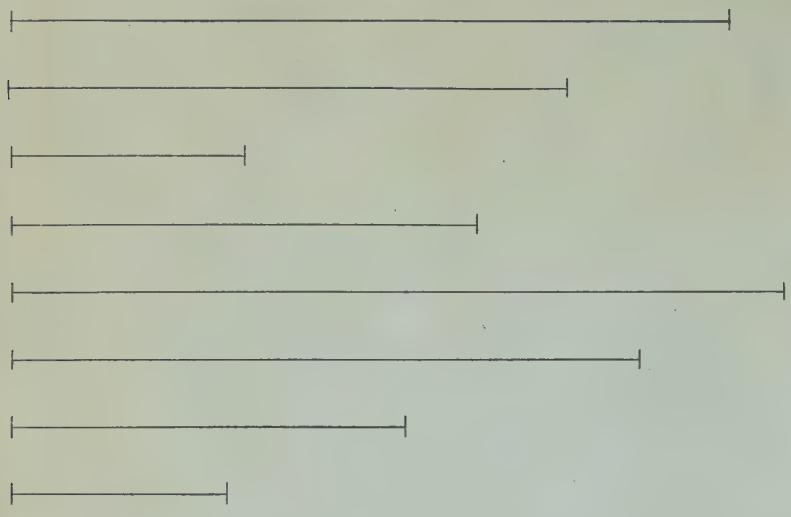
decalitre litre decalitre

centilitre hectolitre

kilolitre kilolitre

©1976, SRA

1. Measure each line segment to the nearest centimetre. Then measure to the nearest millimetre.



a 9 cm, 93 mm
b 7 cm, 73 mm
c 3 cm, 30 mm
d 6 cm, 60 mm
e 10 cm, 100 mm
f 8 cm, 82 mm
g 5 cm, 51 mm
h 3 cm, 28 mm

Round each measurement to the nearest centimetre.

	a	b	c
2.	6.358 m 6.36 cm	3.642 m 3.64 cm	1.729 m 1.73 cm
3.	5.106 m 5.11 cm	2.875 m 2.88 cm	9.897 m 9.90 cm

Round each measurement to the nearest metre.

	a	b	c
4.	9.25 m 9 m	15.67 m 16 m	2.81 m 3 m
5.	4.19 m 4 m	8.93 m 9 m	8.74 m 9 m

The following problems are in pairs. One problem in each pair has measurements. The other does not. Remember to round the measurements before you compute.

	a	b
6.	8.776 + 2.68 = 11.456	8.776 m + 2.68 m = 11.46 m
7.	7.808 − 7.58 = 0.228	7.808 m − 7.58 m = 0.23 m
8.	6.43 − 2.939 = 3.491	6.43 m − 2.939 m = 3.49 m
9.	5.743 + 4.18 = 9.923	5.743 m + 4.18 m = 9.92 m

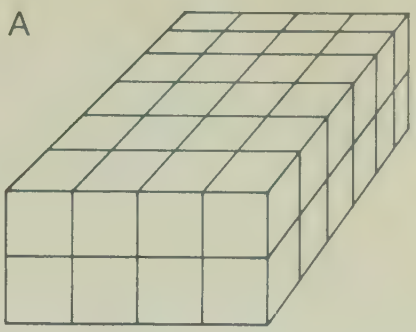
1. **a** What is the length of A? 6

b What is the width of A? 4

c What is the height of A? 2

d What is the volume of A? 48

A



2. In figure B, each cube has a volume of 1 cm^3 .

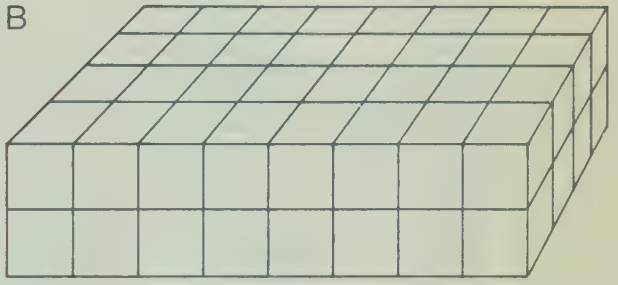
a What is the length of B? 8 cm

b What is the width of B? 4 cm

c What is the height of B? 2 cm

d What is the volume of B? 64 cm^3

B



Give the volumes of boxes with the following measurements.

① 3 cm by 3 cm by 3 cm

27 cm^3

② 6 m by 5 m by 8 m

240 m^3

③ 2 m by 6 m by 3 m

36 m^3

④ 2 cm by 9 cm by 7 cm

126 cm^3

⑤ 4 m by 7 m by 3 m

84 m^3

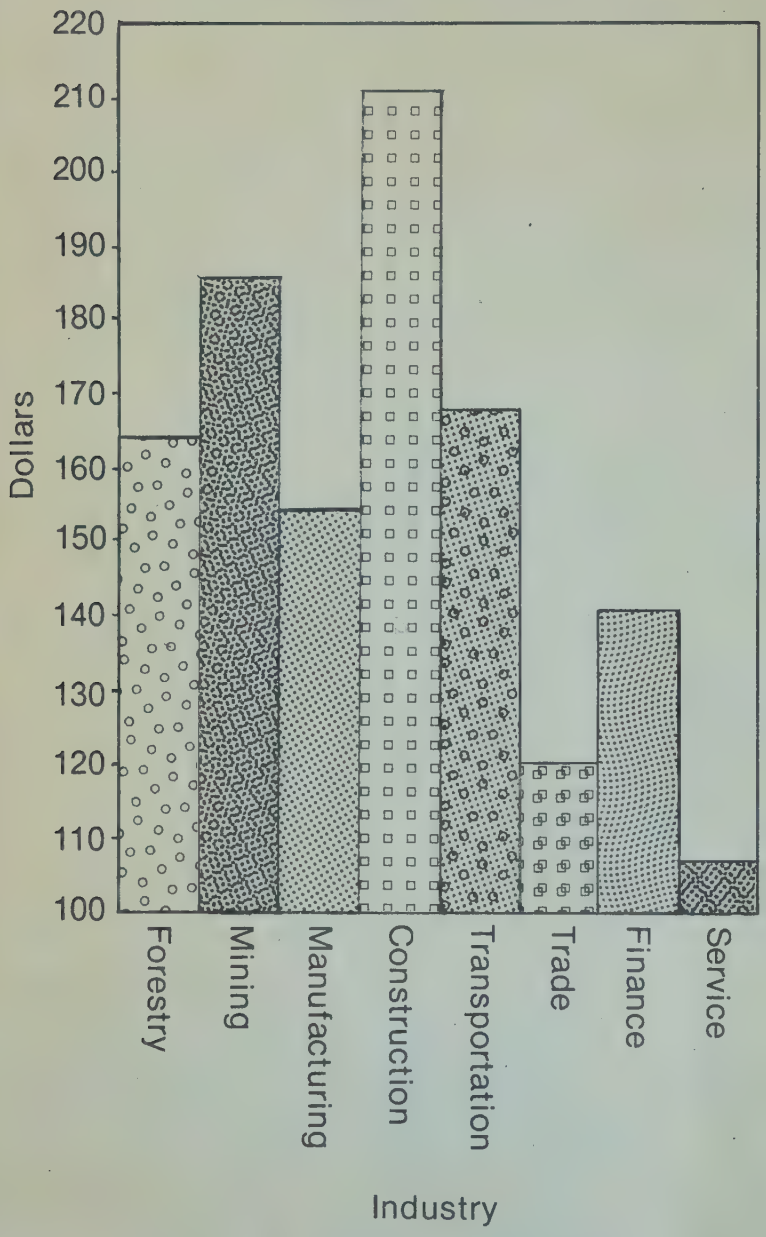
⑥ 4 cm by 3 cm by 8 cm

96 cm^3

©1976, SRA

Read the graph. Answer the questions.

Average weekly earnings:
by industry, 1972.



1. Which industry has the highest average weekly earnings?

Construction

2. Which industry has the lowest average weekly earnings?

Service

3. Estimate the difference in earnings between each pair.

a Finance and Trade $20

b Construction and Transportation $40

c Manufacturing and Service $40

d Mining and Forestry $30

Data for the graph supplied by Statistics Canada for *Canada Yearbook 1973*, and used by permission of Information Canada.

4. Find out from this year's almanac the present average weekly earnings by industry. Make a bar graph of your own to show this information.

Answers may vary.

1. Write six different 3-digit numbers with the digits 3, 5, and 7.

357, 375, 735, 753, 537, 573

2. Write these numbers in order from greatest to least.

a 0.003, 0.3, 3.0, 0.303, 30.3 — 30.3, 3.0, 0.303, 0.3, 0.003

b 6.31, 0.631, 31.6, 0.063, 1.36 — 31.6, 6.31, 1.36, 0.631, 0.063

c $\frac{2}{6}, \frac{7}{6}, \frac{11}{12}, \frac{2}{3}, \frac{1}{2}$ — $\frac{7}{6}, \frac{11}{12}, \frac{2}{3}, \frac{1}{2}, \frac{2}{6}$

d 94 765, 96 759, 95 791, 99 654 — 99 654, 96 759, 95 791, 94 765

Compute.

3.

a	b	c	d	e
6201 + 8766 = 14 967	9238 − 5488 = 3750	4437 + 1569 = 6006	6675 + 9715 = 16 390	8207 − 4518 = 3689

4.

793 + 436 + 372 = 1601	7000 − 4386 = 2614	637 × 79 = 50 323	695 × 24 = 16 680	60)718 = 11 R58

Find a common denominator for each pair. Then write equivalent fractions.

5.

a	b	c	d	e	f
$\frac{3}{5}, \frac{8}{15}$	$\frac{9}{15}$	$\frac{8}{15}$	$\frac{2}{3}, \frac{5}{9}$	$\frac{6}{9}$	$\frac{5}{9}$	$\frac{1}{12}, \frac{3}{8}$	$\frac{2}{24}$	$\frac{9}{24}$

Compute.

6.

a	b	c	d	e
$5\frac{1}{3} + 6\frac{2}{3} = 12$	$8\frac{3}{4} + 7\frac{1}{4} = 16$	$5\frac{1}{2} + 2\frac{1}{3} = 7\frac{5}{6}$	$9\frac{4}{5} - 4\frac{7}{10} = 5\frac{1}{10}$	$6\frac{1}{4} - 2\frac{4}{5} = 3\frac{9}{20}$

©1976, SRA

Compute. Write the simplest na

a

1. $\frac{1}{2} \div \frac{3}{4} =$ $\frac{2}{3}$ $\quad \frac{3}{8} \div \frac{1}{4} =$ $1\frac{1}{2}$ $\quad \frac{5}{6} \times \frac{3}{4} =$ $\frac{5}{8}$

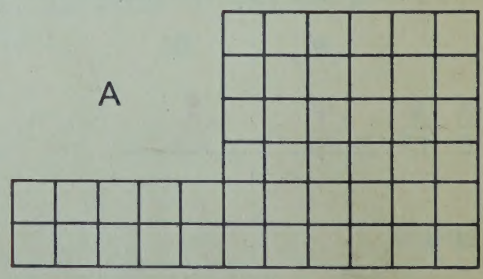
2. $8 \times \frac{1}{3} =$ $2\frac{2}{3}$ $\quad \frac{3}{5} \times \frac{1}{2} =$ $\frac{3}{10}$ $\quad 2\frac{2}{3} \times 1\frac{5}{8} =$ $4\frac{1}{3}$

Compute. Watch out for the decimal.

	a	b	c	d	e
3.	8.73 + 6.36 = 15.09	5.9 + 2.23 = 8.13	69.3 + 75.7 = 145.0	9.06 − 3.86 = 5.20	18 − 2.79 = 15.21
4.	7.2 × 4 = 28.8	0.368 × 5 = 1.840	17.6 × 1.5 = 26.40	1.03 × 0.09 = 0.0927	0.21 × 0.43 = 0.0903

5. $0.3\overline{)9.63}$ = 32.1 $\quad 0.4\overline{)0.524}$ = 1.31 $\quad 2\overline{)33.8}$ = 16.9 $\quad 0.02\overline{)4.44}$ = 222 $\quad 0.43\overline{)645}$ = 1500

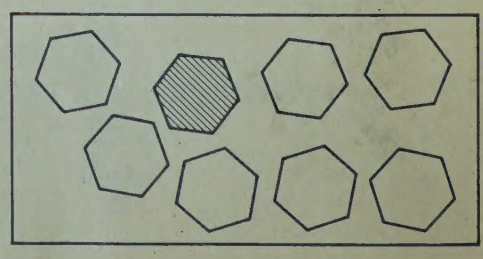
6. Let each square equal 1 cm^2.



a What is the area of A? 46 cm^2

b What is the perimeter of A? 34 cm

7. You are blindfolded. You have one chance to draw the shaded figure out of a hat. What is the probability that you will draw the shaded figure? $\frac{1}{8}$



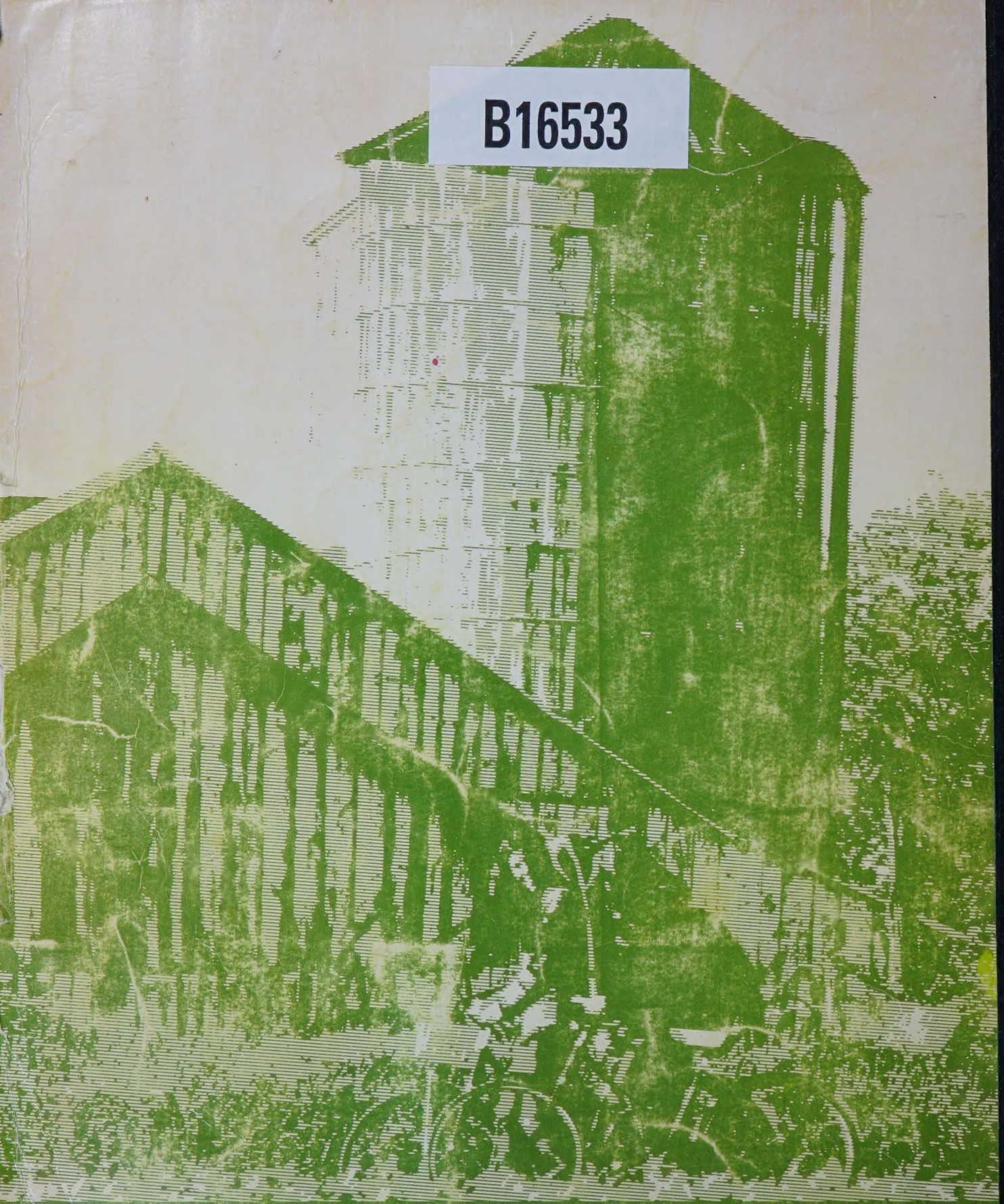
□ indicates a Checkout page
• indicates a Progress Check page

INDEX

PRACTICE SHEET	TITLE	TEXT PAGE
1	Rounding numbers	5
• 2	Estimating sums to the nearest ten	7
3	Estimating sums to the nearest hundred	11
• 4	Practising addition	13
• 5	More addition practice	15
6	Estimation and subtraction	19
7	More estimation and subtraction	22
• 8	Practising subtraction	24
□ 9	Rounding with addition and subtraction	27
10	Number relationships	33
11	More number relationships	37
12	Reviewing multiplication	38
•13	Multiplication with 2-digit numbers	39
•14	Multiplication with 3-digit numbers	41
15	Exploring number relationships and division	44
16	Practising division	45
•17	Division with 1-digit divisors	46
18	Understanding division with 2-digit divisors	47
•19	Practising division with 2-digit divisors	48
□20	Reviewing addition, subtraction, multiplication, and division	52
21	Tracing to find congruent figures	58
22	Drawing congruent figures	60
•23	Finding congruent figures	64
□24	Finding congruent figures again	72
25	Understanding decimals	77
26	Reading and writing decimals	79
27	Ordering decimals	82
•28	Reading, writing, and ordering decimals	83
29	Rounding decimals	86
•30	Ordering and rounding decimals	87
31	Reading, writing, and rounding large numbers	90
32	Using exponents	93
•33	Exponents again	96
□34	Decimals, fractions, and exponents	100
•35	Ordering decimals	106
36	Understanding decimals and the metric system	108
37	Adding decimals	114
38	Subtracting decimals	114
•39	Adding and subtracting decimals	115
40	Multiplying a whole number by a decimal	118
41	Multiplying decimals	123
•42	Addition, subtraction, and multiplication of decimals	126
43	Dividing a decimal by a whole number	129
44	Annexing zeros in division	131
45	Dividing decimals	133
•46	Dividing decimals again	135
47	Applying decimal notation	138
48	Understanding percents	143
□49	Computation with decimals	144
50	Using graph paper to understand area and perimeter	148
51	Computing to determine perimeter	150
52	Finding area and perimeter	154
53	Using perimeter and area	156
54	Application of area	162
□55	Computing perimeter and area	165
56	Reviewing fraction concepts	169
57	Finding prime factors	173
58	Writing fractions in simplest form	177
59	Adding and subtracting fractions	178
•60	Working with fractions	179
61	Renaming mixed numbers	180
62	Multiplying a fraction and a whole number	184
63	Multiplying two fractions	186
64	Multiplying mixed numbers	187
•65	Multiplication with fractions	189
□66	More practice multiplying fractions	192
67	Using tally charts to construct bar graphs	198
68	Determining probability and fairness	205
69	Determining probability and odds	206
70	Finding out if the game is fair	210
71	Determining the probability of an outcome	212
72	Computing range and mean	215
□73	Finding probabilities	216
74	Identifying curves, straight lines, and angles	219
75	Exploring angles	222
76	Using a protractor to measure angles	228
77	Identifying different angles	231
78	Understanding the protractor	234
□79	Identifying and measuring angles	238
80	Renaming fractions	243
81	Adding and subtracting fractions	245
82	Adding and subtracting more fractions	246
•83	Practising addition and subtraction of fractions	247
84	Fraction quotients	250
85	Dividing fractions with common de	
86	C	
87		
88		
89		
•90		
91		
□92		
93		
94		
95		
96		
97		
98		
99		
□100		
101		
102		
•103		
104		
□105		
•106		
•107		
108		
•109		
110		
□111		
□112		

QA 107 S42 1974 Lev.6 pr.shts.
tch.ed.
Science Research Associates.
SRA Mathematics learning
0087325T CURR

B16533



M. Vere DeVault
Helen Frehmeyer
Herbert J. Greenberg
Stanley J. Bezuszka
Leo Anglin
Linda Loff

Reorder No. 3-243316
ISBN 0-574-04316-0